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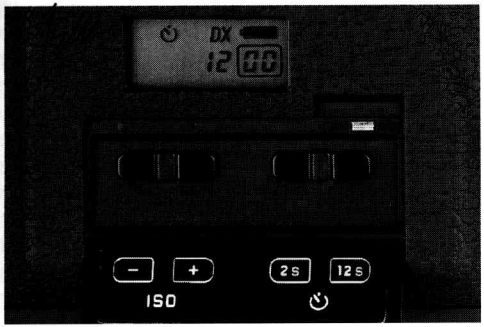


22 Self-timer

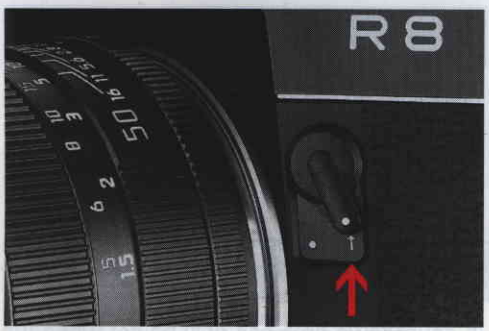
To use the self-timer, the cover plate (32) on the rear cover is opened. There is a choice of two different countdown times: 2 s or 12 s. With the camera on and at the first tap of one of the two buttons (33) the entry is set to readiness, the self-timer symbol and „OFF" appear in the rear cover display. By briefly pressing one of the two buttons again, one of the two countdown times is selected.

After tapping and letting go of the release button, the countdown commences. The time remaining until the shutter release is displayed on the rear cover panel. An optical indication is the blinking of the LED on the front of the camera. The slow blinking becomes faster approximately 2 seconds before the release.

The countdown can be stopped by pressing one of the two buttons or restarted by pressing the release button again.

A countdown time can only be set when the shutter is cocked. The self-timer mode only works for one exposure. The setting is removed automatically when the shutter releases.

For safety reasons and to avoid accidentally changing the set values, the cover flap of the rear cover should always be closed while taking pictures.



23 Independent mirror release

To eliminate the remaining minimal effects from the movement of the mirror and closing of the lens diaphragm, the LEICA R8 offers the possibility of an independent mirror release. To activate, the independent mirror release switch (5) is moved outwards. Then, as soon as the release is pressed, only the mirror is flipped up and the diaphragm closes at the correct value. The shutter is released - and the picture is taken - when the shutter is pressed a second time. After the exposure, the mirror moves back down into place and the diaphragm opens again to the regular setting. If the next photograph is desired without independent mirror release, then the selector switch (5) has to be moved back again.

The independent mirror release can additionally be combined with the self-timer. Then it is so, that when the shutter release is pressed, the mirror is released independently and as soon as the release button is let go, the self-timer countdown is started. When the countdown is finished, the shutter is released and the mirror returns to the regular position. This combination is recommended for situations where it is difficult to achieve shake-free photographs, for example when using long focal lengths on a tripod.

When using an automatic operating mode „A", „T" or „P", the exposure metering occurs when the shutter release is pushed the first time, that is shortly before the independent mirror release. The value is stored and the photograph is made with this exposure. In the operating mode setting „m", the shutter speed/aperture combination is selected manually.

After the independent mirror release, the exposure must take place within a 2 minute time span, since the mirror automatically returns to it's position after this period in order to preserve the batteries. Tapping the shutter release during this waiting period starts the 2 minutes anew. Before the next exposure, the shutter has to be cocked again. To prevent the film from moving to the next frame, the rewind button can be pressed first. It is not possible to set the flipped up mirror back manually

24 Multiple exposures

For multiple exposures, the multiple exposure lever (17) is moved via the button for rewind clearance (18), the frame counting mechanism starts to blink. All of this occurs prior to the first exposure. As a result, after the exposure, when the shutter is cocked manually or with the motorized winder, the film is not transported to the next frame. This piece of film can be exposed again any number of times. Shifting the multiple exposure lever simultaneously activates a „film brake" so that the film remains positioned precisely in the film canal.

Before the last exposure is made, the lever is moved back into place. Then the film is moved on to the next frame - with the wind lever or with a motor - after the shutter is released.

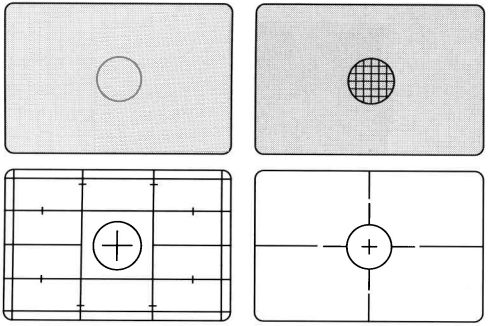
25 Eyepiece lock

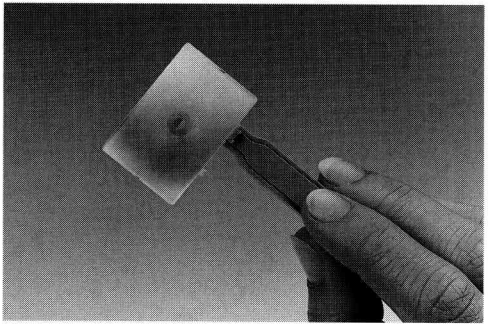
The silicium photo diode of the LEICA R8's exposure meter is down in the bottom of the camera where it is shielded from stray light. For this reason light entering into the eyepiece can only influence the metered result in extreme cases, for example when the photographer, while using a tripod, is not looking through the viewfinder and direct sunlight or a spotlight is shining directly into the eyepiece from behind. In this case, the eyepiece lock lever (25) - to the right of the viewfinder - can be used to close the eyepiece. The cover that swings unto place is red.

26 Depth of field lever

The LEICA R8 meters the exposure with the lens diaphragm open. When the depth of field lever is operated (3), the lens diaphragm closes and permits a visual evaluation of the focused and unfocused areas in the viewfinder (the exposure meter then displays incorrect values!). This is especially useful for close-up photographs. In the operating mode metering flash „F", pushing the depth of field lever also activates the flash. The shutter release is blocked when the depth of field lever is pushed down.

The depth of field scale of the lens shows the range of the depth of field for each of the subject distances. If the SUMMICRON-R f/2/50 mm lens is set at 5 m for example, the depth of field with f/4 reaches from approximately 4 m to 8 m, with f/11 from approximately 3 m to 20 m. Our depth of field chart, number 920 003, contains more detailed information about the depth of field for all focal lengths.



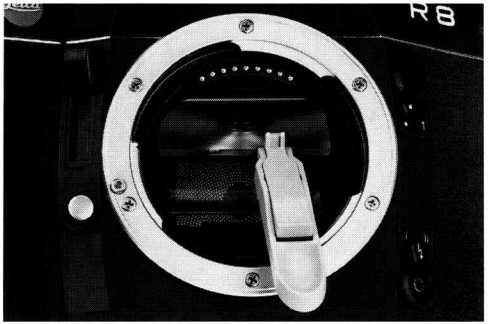


27 Accessories for the LEICA R8

Focusing screens

Special assignments require tailored systems for fast and precise work. This is why there are four extra focusing screens for the LEICA R8 in addition to the universal screen:

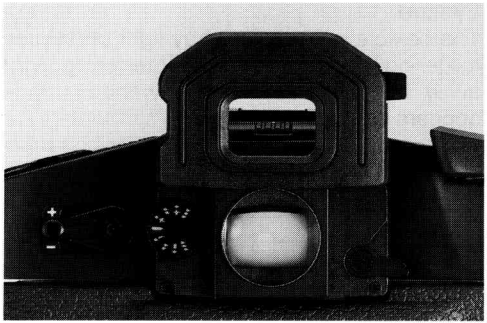
- The uniform ground-glass screen (order-no. 14 344), e.g.. for the extremely close-up range and very long focal lengths.
- The micro-prism screen (order-no. 14 345), e.g. for an undisturbed evaluation of the image lay-out.
- The uniform ground-glass screen with grid divisions (order-no. 14 346), e.g. for architecture, panorama and reproduction uses (also has markings for the creation of slides for TV restitution).
- The clear-glass screen (order-no. 14 347) for research photography, e.g. micro or astro-photography.



The focusing screens are delivered separately in a container with tweezers and a dust brush. To change the screen, remove the lens, flip down the screen holder and remove the screen with the tweezers.

Eyecup

The flexible eyecup for stray light protection (order-no. 14 217) keeps interfering light away from the eye. The viewfinder image appears even more brilliant.



Correction lenses

Correction lenses from -3 to +3 diopters (in whole diopter steps) are available to make it possible to change the eyepiece setting by more than the built-in ±2 diopters. To insert the correction lens, the eye cup is removed, the lens is placed in the eyepiece hollow and the eye cup is slid back into place. A safety catch keeps the two from being lost.

Angle viewfinder

The angle finder (order-no. 14 300) makes surveying the viewfinder image while taking pictures from the repro-tripod or out of the „worm perspective" easier. It is simple to switch in an additional 2x magnifying glass. To attach the angle finder the regular camera eyecup needs to be removed first.

WINDER R8

The WINDER R8 is attached after removing the camera's battery compartment and permits an exposure frequency of approximately 2 frames per second as well as a motorized rewind. The WINDER batteries (2, type 123) also take over the power supply for the camera. The WINDER has a connection for a possible remote control.

DRIVE R8

The DRIVE R8 is attached after removing the camera's battery compartment. It allows for single exposures or series with a frequency of 2 or also of 4 frames per second. Additionally, the DRIVE can be used for motorized rewind. The drive also offers a bracketing function, this means, 3 photographs can be made automatically with different exposure values (with ½ or 1 EV value difference). The batteries of the DRIVE (4, type Mignon/AA) then also take over the power supply of the camera. The DRIVE has a connection for a remote control.

Cases

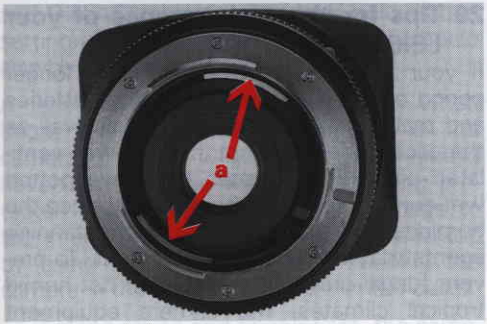
Ever-ready cases are available for the LEICA R8 (order-no. 14 519 for the camera without the motor, order-no. 14 527 for the camera with WINDER R8 attached). They provide a lot of mechanical protection for the camera. In addition, there are various combination cases available for the vast array of equipment with several lenses and accessories.

Filters

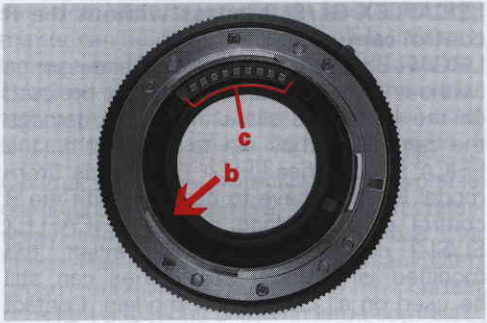
An assortment of color, UVa and polarizing filters are available for use on the LEICA R lenses.

When the exposure metering takes place through the lens, the light absorption of the filter is usually automatically taken into consideration. The different films have a varying film speed in the individual spectral areas however. For this reason, filters that are more dense and more extreme might cause deviations from the metered exposure time. Orange filters for example, generally require an extension of one exposure value, red filters usually need around 2 exposure values. It is not possible to quote a general value that is valid for all, since black and white films show very different sensitivities to red.

Metering and setting with circular polarizing filters can be done the same as with regular filters. Linear, polarizing filters should not be used. Metering with linear polarizing filters can result in extreme deviations since the translucent main mirror has a polarizing effect as well and - depending on the filter's setting - can greatly falsify the measurement.



R cam and LEICAFLEX control cams



R cam and electric contacts

28 Use of existing lenses and accessories

LEICA R lenses

All lenses and lens accessories from the LEICA R program, fit on the LEICA R8 without any modification.

Some of the earlier lenses without spring-back diaphragm - as well as some of the accessories without spring-back diaphragm relay - can only be used in the aperture priority and manual modes (see chapter Working aperture metering).

Most LEICA R lenses can be equipped with the electrical contact ledge for data transfer and electronical exposure compensation. For this though, the LEICAFLEX SL/SL2 control cam must be removed which means that these lenses will only be usable on LEICA R models (from LEICA R3).

LEICAFLEX SL/SL2 lenses without the R control cam

LEICAFLEX model lenses and accessories (without R control cam) must not be used on the LEICA R8 since these can damage the camera. If they are to be used on the LEICA R8 or other LEICA R cameras (from model R3) they have to be fitted with the R control cam. As long as the LEICAFLEX SL/SL2 control cams remain intact, the modified lenses and accessories can still be used on all LEICAFLEX models. Contact ledges for data transfer to the LEICA R8 can not be added.

VISOFLEX lenses on the LEICA R8

All lenses from the LEICA M-program that fit on the VISOFLEX can also be used with the adapter (order-no. 14 167) on the LEICA R8. The work requirements, for example exposure range and attainable object field sizes, remain the same as when used on the VISOFLEX. There is no automatic spring back diaphragm, so the exposure time is metered with the working diaphragm.

29 Tips for the maintenance of your LEICA R8 and R-lenses

If your Leica is to be stored for a longer period of time, please remove the batteries and make sure that the camera as well as the accessories are kept in a dry, well ventilated place. Photo cases that have gotten wet during use should be emptied, since the humidity and the release of leather-tanning agents may damage the equipment. To prevent fungal growth during use in hot humid tropical climates, the camera equipment should be exposed to as much ventilation as possible. Storage in airtight containers or cases can only be recommended when a drying substance such as Silicagel is used additionally. Since any dirt is also be breeding ground for micro-organisms, the equipment should carefully be kept clean.

All the mechanical operated bearing and gliding surfaces on your LEICA R8 have been lubricated. Please remember this when the camera is not in use for a longer period of time. To prevent the grease from becoming tacky, the camera shutter should be wound and released several times with each shutter speed. This should occur around every three months without film loaded. It is also recommended to move and use all the other operating elements (e.g. program selector,

and DIN-ASA-setting). The lens helix (range setting) and aperture setting rings should also be moved from time to time.

A lens works like a burning glass when bright sunlight shines on the front of the camera. This is why the camera should never be laid aside without first being protected against strong sunlight. Damage to the interior of the camera can be prevented by using the lens cover and keeping the camera in the shade (or directly in the case).

To remove stains and fingerprints, the camera and lens are wiped with a clean, lintfree cloth. We recommend microfiber cloths, that are stored in a protective container. They can be washed in temperatures up to 40 °C (without fabric softener, never iron!). Rougher dirt in hard-to-reach corners of the camera body can be removed with a small brush. Please do not use any liquid cleaning agents to clean the camera body. Dust and lind of the inside of the camera (e.g. on the mirror or film track) are best removed carefully with a softhair brush that has been lubricated repeatedly with ether and then dried. Be careful not to damage the focusing screen with the shaft of the brush. Normally a soft-hair brush is sufficient for the removel of dust from the outer lens elements. In case of more stubborn dirt, a very clean, soft cloth that is completely free of foreign matter can be used, wiping carefully in circular motion from the inside to the outside. Eyeglass cleaning cloths, that are impregnated with chemicals, should not be used since they may damage the lens elements.

Optimal front-lens protection in unfavorable conditions (for exemple sand, salt-water-spray) can be achieved with colorless Uva filters. These can however, as with any filter, cause undesirable reflections in certain backlight situations and with large contrasts. It is recommended to use the lens hood since it also protects the lens from fingerprints and rain.

Note the fabrication numbers of your camera (engraved on the bottom plate of your LEICA R8) and lenses since these are extremely important in case of loss.

CE notice
The CE identification of our products documents the adherence to the fundamental requirements of the respectively valid EU guidelines.

Modern electronic elements react sensitively to electrostatic discharge. Since people can easily charge up to several 10.000 Volt, by walking on synthetic carpet for example, a discharge might occur when you come into contact with your LEICA. This can happen especially when it is sitting on a conductive surface

If only the camera housing is affected, then this discharge is totally harmless for the electronics. The outer contacts, for the winder or the rear cover contacts for example, should preferably not be touched - in spite of additional safety circuits.

For possible cleaning of the contacts, please do not use the optical micro-fiber cloth (synthetic!) but instead use a piece of cotton or linen. If before doing so, you consciously touch a heating or water pipe (conductive, grounded material) then you can be sure to have discharged any possible electrostatic charge.

Please prevent soiling and oxidization of the contacts by storing your LEICA in a dry, dust protected environment.

30 Leica customer service

The customer service department of Leica Camera AG or of one of the Leica agencies (see warranty card) is at your disposal for the maintenance of your LEICA R8 or in case of damages. Please contact the authorized Leica distributor nearest you.

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31 Technical data

Camera type: Micro-processor controlled, single **eye,** MF-35 mm format, reflex camera with multiple automatic modes and motor attachment capability.

Lens attachment: LEICA R bayonet with additional electrical contacts. All LEICA R lenses from 15 mm to 800 mm focal lengths can be used, as well as the earlier LEICAFLEX SL/SL2 lenses that were modified with the R control cam.

Exposure metering, operating modes, power supply

Switching the camera on: Turn the operating mode selector out of the „OFF" setting and touch the shutter release (camera, motor or remote control). When the shutter is wound, the displays remain for 14 seconds after the release button is let go.

Exposure metering methods:
- Selective metering with all operating modes. Metering field indicated in the viewfinder by a circle with a diameter of 7 mm.
- Multiple field metering (6 fields) with all operating modes.
- Center-weighted integral metering with all operating modes.
- Center-weighted TTL integral metering for flash lighting with system conformed flash units.
- Selective flash metering with preferred manual flash unit.

Open diaphragm metering with all LEICA R lenses and accessories with an automatic spring-back diaphragm, otherwise working-aperture metering.

Operating modes:
m manual exposure time and aperture setting via the light balance
A aperture priority
P variable automatic program mode
T shutter speed priority
F selective TTL pre-flash metering

Metered value storage: For the selective metering with all operating modes by applying light pressure on the release.

Exposure override: Plus/minus three exposure values in half steps.

Film speed range:
- Manual setting from ISO 6/9° to ISO 12.800/42°. (With additional override of -3 EV to +3 EV, films from 0 DIN to 51 DIN can be exposed as well.)
- DX-scanning from ISO 25/15° to ISO 5.000/38°.

Metering range with f/1.4 and ISO 100/21°:
- Selective metering: from 0.007 cd/m² to 125.000 cd/m², that is from EV -4 to EV 20 or from 32 s at f/1.4 to 1/8000s at f/11.
- Integral and multiple field metering: from 0,03 cd/m² to 125.000 cd/ m², that is from EV -2 to EV 20 or from 8 s at f/1.4 to 1/8000 s at f/11.

Warn display occurs in the viewfinder when the metering range is not reached.

Photocell: Silicium photo diode protected from stray light.

Power supply: Operating voltage 6 Volt.
2 lithium cells - type „CR 2".
Automatic warn display when the battery voltage is failing.

Flash photography

Flash synchronization: Via the center contact in the accessory shoe or the flash connection socket. Optionally on the first or second shutter curtain. Flash synch time: X = 1/250 s.

TTL-flash exposure metering: Center-weighted integral metering with system conforming flash units and adapter SCA 3501.

Computer automatic: Automatic relay of film speed, override and set lens aperture with a corresponding flash unit with SCA 3501 adapter.

Metering flash before the exposure is made: Selective TTL metering, also with flash units that do not conform to the system, studio flash systems for example.

Strobe flash mode: Multiple flash releases during one exposure. Automatic adaptation of the exposure time with corresponding flash units and SCA 3501 adapter.

Film speed range for TTL flash exposure metering:
- For TTL flash exposure metering: ISO 12/12° to ISO 3.200/36°.
- For TTL flash metering: ISO 25/15° to ISO 400/27°.

Flash readiness display: By illumination of the flash symbol in the camera viewfinder and the rear cover display.

Flash success control: Displays for under or overexposure or correct exposure appear automatically for approximately 4 seconds after the picture has been taken.

Flash exposure correction, flash illumination (flash override): Corrections from -3⅓ to +3⅓ EV steps can be set in ⅓ EV steps on the SCA 3501 adapter. Fixed setting of -1⅔ EV steps while using the automatic program mode.

Zoom reflector of the flash units: Automatic adaptation of the zoom reflector to the lens focal length for corresponding flash units with SCA 3501 adapter and lenses with electric contacts.

Viewfinder system

Prism: Built-in penta-prism

Focusing screens: 5 interchangeable focusing screens:
- Universal screen (ground glass screen with micro-prism ring and wedge),
- Uniform ground glass screen,
- Uniform ground glass screen with grid divisions,
- Micro-prism screen,
- Clear-glass screen with cross-lines.

Eye piece: High-eye-point viewfinder. Diopter correction from -2 to +2 dptr., to be set on the viewfinder. Additional attachment of correction lenses from -3 to +3 dptr. is possible. Built-in eye piece lock.

Viewfinder field: 23 x 35 mm^2 , equivalent to approx. 93 % of the film format (96 % vertical, 97 % horizontal) according to the standard slide frame format.

Viewfinder magnification: 0,75 x with 50 mm lens in the infinity setting and with 0 dptr.

LED displays in the viewfinder:
- Warning display in case of a short-fall of the metering range
- Warning display for manually set film speed that deviates from the DX value
- Override setting
- Metering method
- Occurred meter value storage
- Flash readiness and flash control
- Operating mode
- Aperture in half values
- Light balance for manual exposure compensation
- Result of the TTL metering flash measurement
- Exposure time in half values
- Warning display for over and under exposure
- Frame number

Shutter and release

Shutter: Microprocessor controlled, metal leaf shutter with vertical run-off.

Exposure times: Can be set manually on the shutter speed setting ring:
- 16 s to 1/8000 s in half values.
- B for long time exposure of any length
- X = 1/250 s for flash synchronization

For automatic program modes infinitely variable from 32 s to 1/8000 s.

Release: Three steps: activation - metered value storage - release.
Standard thread is integrated in the release for the cable release.

Self timer: 2 countdown times: 2 s or 12 s. Red LED display during the countdown.

Swinging mirror: 70 % reflection, 30 % transmission.

Mirror pre-release: After selection via the release. After the release, the mirror swings back into position.

Bracketing: In connection with the DRIVE, 3 pictures can be made with an exposure difference of either ½ EV or 1 EV.

Film transport

Film insertion: Easy and fast procedure due to the automatic film threading.

Forward film transport: Manually with the quick wind lever or motorized with the WINDER (2 fps) or DRIVE (can be switched to 4 fps, 2 fps or single framesetting).

Film rewind: Manually with the rewind lever or motorized with attached WINDER or DRIVE.

Frame counting mechanism: In the viewfinder and rear cover display. Automatic resetting after the rear cover is opened.

Multiple exposures: An unlimited number of multiple exposures - without image disalignment and without the frame counter moving on - is possible.

Camera housing

Material: Cover plate is of die-cast zinc, with black or silver chrome finish.

Inner housing is of aluminium.

Base plate is of synthetic material with a metal tripod plate, bottom part has a rubber base.

Depth of field lever: For visual evaluation of the depth of field and to release the metering flash.

Tripod thread: A ¼ (¼") secured against rotation according to DIN 4503.

Film cartridge viewing window: To check the type of film loaded.

Dimensions and weight: Width: 158 mm - Height: 101 mm - Depth: 62 mm
Weight: 890 g

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