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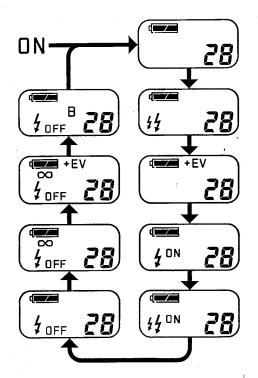
PayPal Name Lynn@butkus.org

Leica

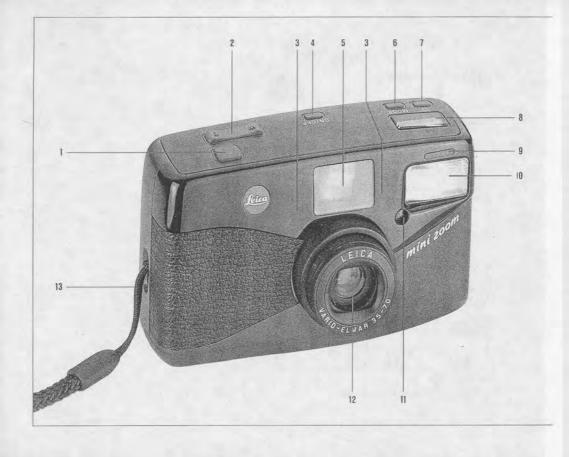
Instructions

# **LEICA** mini zoom

Mode selection by button MODE







We wish you much pleasure and many years of successful photography with your LEICA® mini zoom. The LEICA VARIO-ELMAR 35-70 mm zoom lens, thanks to its high optical performance, produces exceptional quality photographs and increases your composition perspectives with its variable focal lengths. The LEICA mini zoom's numerous special features enable you to master even difficult photographic situations. Plus, you can take it anywhere as a constant companion as its extremely compact and lightweight. Like all compact cameras, the LEICA mini zoom is best suited for photography with color negative (print) films. In order for you to enjoy the full spectrum of possibilities the LEICA mini zoom offers, we recommend that you start by reading this instruction booklet

The most important information you need has been condensed in the enclosed short version of the instruction manual. It is waterproof and small enough for any pocket.

This instruction booklet was printed on paper bleached without chlorine – an expensive process that preserves the environment, especially natural water resources.

## **Brief Description**

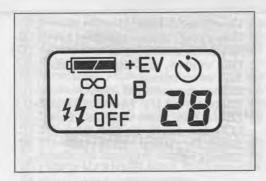
The LEICA mini zoom is a compact and versatile autofocus 35 mm rangefinder camera designed for easy, yet quality photography. Its special features include:

- LEICA VARIO-ELMAR 35 70 mm lens f/4.0 7.6 (7 elements in 6 groups)
- Infrared autofocus with focus memory
   Focus range from 60 cm (24in.) to infinity
   Center-weighted integral metering with
- Center-weighted integral metering with exposure memory
   Exposure everyide + 2 EV
- Exposure override + 2 EVBuilt-in flash
- Automatic flash activation in low light
- Manual-on / -off flash
   Pre-flash ontion to reduce "red-eye"
- Pre-flash option to reduce "red-eye" effect
- Infinity focus lock
- Infinity focus lock with exposure override

- Long-time exposures
- Large, bright viewfinder
- Automatic film advance and rewind
- Continuous shutter release, about one every 1.5 s
- Automatic film speed setting (DX-coding)
- Quartz controlled data back depending on model chosen

1 Shutter release button 2 Zoom selector 3 Autofocus sensors (concealed system) 4 "ON/OFF" switch 5 Viewfinder window 6 Mode selector button 7 Self-timer button 8 LCD data panel (Liquid Crystal Display) 9 Self-timer LED diode 10 Electronic flash 11 Sensor for exposure meter 12 LEICA VARIO-ELMAR 35-70 mm lens 13 Neck / wrist carrying straps	Table of Contents Brief description
	Focus and exposure memory
	flash
	mode and automatic flash
	Taking pictures in automatic program mode with automatic flash and exposure override

Flash range	<ul> <li>(4) Viewfinder eyepiece</li> <li>(5) Green confirmation signal</li> <li>(6) Red confirmation signal</li> <li>(7) Film window, showing loaded film</li> <li>(8) Back cover release</li> <li>(9) Battery compartment cover</li> <li>(20) Tripod thread 1/4" (A1/4 DIN 4503)</li> <li>(21) LEICA mini zoom with Data Back: LCD-data display on Data Back</li> <li>(22) Switch for manual film rewind</li> <li>(23) Camera back</li> </ul>
Data back	
Data back imprinting	
Technical Data	





= battery function symbol

self-timer indicator

= automatic flash with pre-flash activated

+EV = exposure override + 2 EV

#ON = manual flash-on

14 ON = manual flash-on with pre-flash

**★**OFF = manual flash-off

∞ = infinity focus lock (flash is

**★OFF** switched off)

B = long-time exposures (flash is

**★OFF** switched off)

≥B = frame counter



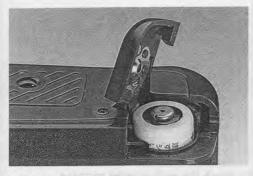
Compatible 3 volt lithium batteries,

for example:

DURACELL DL123A KODAK K123LA PANASONIC CR123A VARTA CR123A, etc.

Inserting the battery

The LEICA mini zoom is powered by a 3 volt lithium battery (e.g. CR123). To insert the battery, open the battery compartment (19) cover by pushing in the direction of the arrow. Insert the lithium battery with the minus pole facing forward as indicated in battery compartment; close the cover until it clicks shut.



Checking the battery

Switch the camera on (see p. 7). The protective lens cover then automatically opens and the lens (12) moves to the "ready" position. If the symbol appears together with other display symbols, battery power is sufficient. When the symbol appears, the battery still has approximately 30% capacity. Should no symbols appear or only the low battery warning flashes, the battery is flat and must be replaced immediately. In this case, the shutter cannot be released. If the lens does not move into the "ready" position when the "ON/OFF" button is pressed, the battery may be low, inserted incorrectly or missing. Also, after

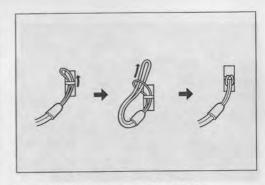
a series of exposures in close succession, the battery symbol may be appear. Before further exposures, pause briefly for the battery to recover.

Attention: Cold temperatures reduce battery performance. In addition, the film becomes stiffer, making film advance more difficult. At low temperatures, carry your LEICA mini zoom in an inside pocket and use a fresh battery.

Changing the battery

When there is film in the camera, insert a new battery immediately after removing the old one. If the camera is left more than 10 minutes without a battery, the frame counter in the LCD data panel resets to "1" when you insert a new battery, regardless of the number of pictures taken.

Attention: Keep battery contacts clean. Do not dispose of used batteries by throwing them into an open fire; do not recharge, break open, disassemble or heat. Do not dispose of used batteries in normal household garbage, as they contain toxic wastes that are dangerous to the environment. Return them to your local supplier or turn them in for recycling.



To attach the neck or wrist carrying straps (13)

When taking pictures, the eveready case (available as an accessory, order no. 18 505) remains connected to the carrying strap when it is pulled through the loop found inside the case.



Switching the camera on / off

To do this, press the "ON/OFF" switch (4). The protective lens cover opens, the lens extends to the "ready" position and the LCD data panel (8) display appears.

When the camera is switched off all displays disappear, the lens returns to the transport position and the lens cover closes.

When the camera is not used for approx. 5 minutes after being switched on, the data panel display and the flash are automatically turned off. The lens is set to the 35 mm focal length (wide-angle). With a light touch on the shutter release, all electronics are activated and the camera is again immediately ready to shoot. This function is to

prevent unnecessary battery use and thus, extend battery life.

## Compatible 35 mm films:

The LEICA mini zoom automatically sets the following film speeds for DX-coded 35 mm films (package and cartridge are marked "DX"):

Film spee			Setting at ISO/DIN
50 / 18°	64/190	80 / 20°	50 / 18°
100/21°	125 / 22°	160 / 23°	100/21°
200/240	250 / 25°	320 / 26°	200 / 24°
400 / 27°	500 / 28°	640 / 29°	400 / 27°
800/30°	1000/31°	1250/32°	800/30°
1600/33°	2000/34°	2500/35°	1600 / 33°
3200/36°	4000/37°	5000/38°	3200 / 36°

With film emulsions slower than ISO 50/18°, or if the film is not DX-coded, the camera is automatically set to ISO 100/21°.



Loading the film

If there is film in the camera, ensure that it is rewound before opening the back cover, i.e., that the frame counter is set at "0". Otherwise light will damage any exposed film.

Attention: Whenever possible, do not load or remove film in bright light. To prevent light from hitting the film, load or remove it in your body's shadow.

 Unlatch and open the back cover (23) by moving the sliding cover release (18) upward.

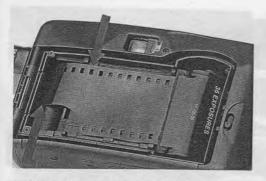


Load the film cartridge into the film chamber as shown. The camera guide pin must fit into the corresponding socket on the film cartridge base.

3. Ensure that it is laid flat between the film guides with the film lead extending

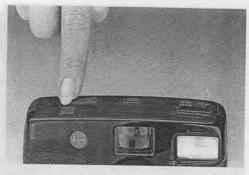
to the take-up spool.

If you have pulled out too much film, carefully wind it back into the cartridge. Make sure that the film is laying flat in the film chamber with the film transport gears visible through the film perforations.



4. Close the camera back. The camera switches on and the film advances automatically to the first frame. The camera is ready for the first exposure when the frame counter is at "1". If the frame counter flashes "0", the film is not loaded properly.

Reopen the back, remove the film and re-insert it as described.



Setting the focal length

The button to select the focal length (zoom selector, 2) operates like a seesaw. By pressing to the right side "T" for tele, the lens zooms to the longer focal lengths. By pressing to the left side "W" for wideangle, the lens zooms to the shorter focal lengths.





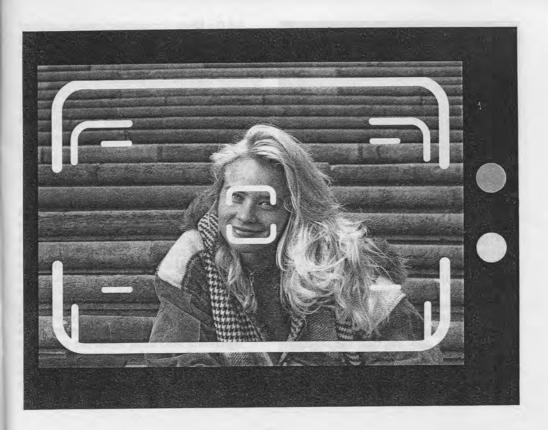
Holding the camera

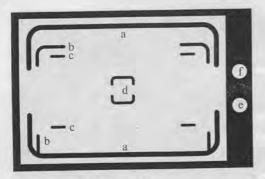
To avoid camera shake, hold your LEICA mini zoom as shown in the photographs. Also check that the lens, flash (10), autofocus sensors (3) and exposure meter window (11) are not inadvertently covered by your hand, the carrying strap, etc.

For vertical format photographs, ensure that the flash is always at the top as lighting from above produces a more natural impression.

It is also advisable with vertical format photography to use the thumb to press the shutter release to minimize camera shake.







Viewfinder display (5, 14)

The viewfinder adjusts according to the zoom focal length selected.

a: Viewfinder frame:

The frame lines visible in the viewfinder shows the picture area of the lens.

b: Close-up frame markings:

For close-up photography, the view-finder image of the lens picture area is shifted upwards. This parallax becomes all the more apparent the longer the focal length and the shorter the focusing distance. The close-up range markings in the viewfinder of the LEICA mini zoom applies to the 70 mm focal length in the focus range of 0.6 m to about 1.4 m (2 to

4.6 ft). Here, the picture area is outlined by the close-up markings at the top and the viewfinder border below the frame lines at the bottom.

c: Markings for the panorama format: With use of the panorama adapter (see p. 26) available as an accessory, the picture area covered is indicated by markings inside the frame lines.

d: Autofocus frame:

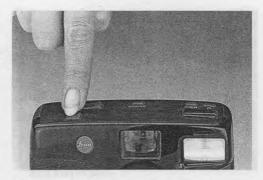
Aim the camera so that the main subject to be in sharp focus is within this frame (it is not necessary that it fills it).

e: Green confirmation symbol (15):

If the green confirmation symbol lights up when the shutter release button (1) is lightly pressed, this indicates that focus point and exposure have been measured as well as stored in memory. When the green confirmation signal flashes, this is a warning for possible camera shake in low lighting conditions with the flash switched off. You can, nevertheless, still take the picture. The green confirmation signal will also flash when the subject is too close [under 60 cm (24 in)]. However, in this case, the shutter release will be blocked. The distance between camera and subject has to be increased.

f: Red confirmation signal (16):

The red confirmation signal lights up after a slight pressure on the shutter release to indicate flash readiness. The red confirmation signal flashes and the shutter release is blocked when the flash is not yet ready. Flash recycling time with fresh batteries is about 5 seconds.

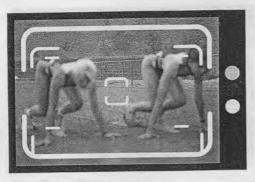


**Taking pictures** 

For photographs with the main subject in the center of the frame:

After selecting focal length, point the camera so that the main subject or portions thereof are within the autofocus frame area. Now lightly press the shutter release button to pressure point.

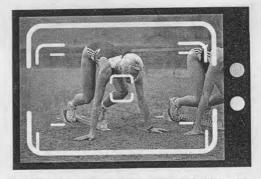
As soon as the green confirmation signal appears in the viewfinder, fully press the shutter release button to take the picture. The camera then advances the film to the next frame and the film counter increases by one.



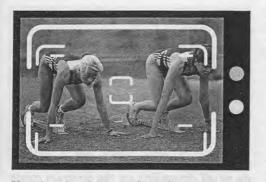
Focus and exposure memory

For photographs where the main subject matter is off-center:

If the subject that is to be sharply focused lies outside the autofocus frame, the focus memory feature should be used.



Holding the camera to the eye, point it at the subject matter so that the most important portions to be in focus are inside the autofocus frame. Now lightly press the shutter release button to pressure point. The green confirmation signal lights up to indicate that the focus point has been stored.



Keeping the shutter release button pressed down slightly, compose your picture as you wish. When ready, press the shutter release fully down for the exposure.

Important: When the shutter release button is pressed slightly to pressure point, the camera also stores the correct exposure value. The focus and exposure memory is cancelled as soon as you remove your finger from the shutter release button.

Using the focus memory feature is also useful with difficult autofocus subjects such as:

 bright light sources, such as light bulbs or floodlights.

 very shiny surfaces and strong reflections, such as water, mirrors, brightly polished car surfaces, etc.

bright transparent objects such as flames,

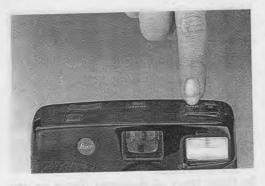
fireworks and hair.

dark objects and low-reflective surfaces.

 objects behind glass, such as, windows and showcases.

In these types of situations, focus on an alternative object that is at the same distance and similarly lit. Storing the focus and exposure as described, you are now able to take your picture successfully.

Attention: By continually holding down the shutter release, as many pictures as you choose can be taken in a row. With this continuous shutter release mode, it is possible to capture, e.g., action sequences.



Program modes

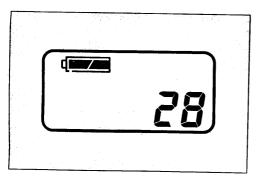
The LEICA mini zoom is a fully automatic camera. After turning it on, it is immediately ready to shoot. By a slight pressure on the shutter release, focus and exposure are set and, when necessary, the flash is switched on as well. For special situations, the LEICA mini zoom can be manually controlled. Additional functions in various combinations can be chosen from as program modes.

With each press of the mode selector button (6, "MODE"), the program mode is changed to the next setting (see inside cover page 2 and Brief Instructions)). Every program mode remains in effect until another mode is chosen or the camera is turned off. After switching the camera on again, the automatic program mode will be in effect.

Taking pictures with and without flash

The LEICA mini zoom has a built-in flash which can be intentionally switched on or off depending on the program mode chosen.

It is additionally possible to photograph with the pre-flash feature to minimize the "red-eye" effect.



## Taking pictures in automatic program mode and automatic flash

When switched on, the LEICA mini zoom is set to the automatic program mode so that you do not have to immediately choose a mode. In this mode, the flash is automatically activated in low light, when slower shutter speeds are likely to lead to camera shake, e.g., in dark interiors and in twilight. The data panel displays the battery function symbol and the frame counter.

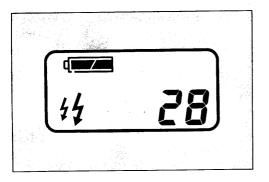
The green confirmation signal lights up as soon as the focus and exposure are measured and saved.

The green confirmation signal flashes as a warning of camera shake in insufficient light when the flash is switched off. Nevertheless, you can still take the picture. In this case, steady the camera against or on a stable object, or use a tripod.

The green confirmation signal also flashes when the subject is too close [under 60 cm (24 in)]. In this case, the shutter release is blocked until the distance is increased (see also "Viewfinder display" p. 12).

The red confirmation signal lights up with a slight pressure of the shutter release when the flash is recharged.

The red confirmation signal flashes rapidly and the shutter release is blocked as long as the flash is not ready (see also "Viewfinder display" p. 13).



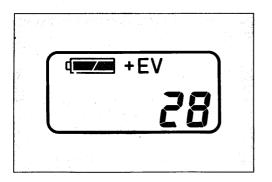
Taking pictures in automatic program mode with automatic flash and pre-flash

With flash photography, an undesirable "red-eye" effect is possible when the flash is reflected from the retina of the eye directly to the camera. Therefore, the person being photographed should not look directly into the camera. In low light, this effect is especially noticeable due to dilated eye pupils. When, e.g., photographing indoors, it is recommended to add as much normal room lighting as possible so that the eye pupils are more contracted. By using the pre-flash, released immediately prior to the main flash, the "red-eye" effect

is greatly reduced as it contracts the eye pupils of the people looking in the direction of the camera.

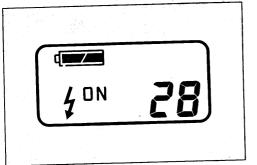
Press the mode selector button (6, "MODE") once. The data panel will display a double flash symbol 1/2.

Important: Ensure that the main subject is within the flash range (see p. 21).



To activate exposure override, press the mode selector button (6, "MODE") until the camera data panel displays the symbol "+EV".

Taking pictures in automatic program mode with automatic flash and exposure override Exposure measurement is done from a middle gray value which corresponds to the brightness of an average photographic scene. When the scene does not measure to this value, an exposure override is necessary. In extremely bright surrounding scenes, e.g., with snow or at the beach, the picture becomes underexposed due to the high amount of light reflections. In order to compensate, the picture must be overexposed by "+2EV" (EV = Exposure Value).



the camera will set a shutter speed according to the lighting situation up to the "B" long exposure times (please also see page 22).

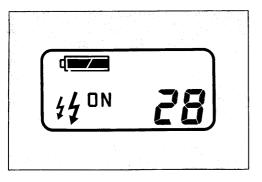
To activate the flash manually, press the mode selector button (6, "MODE") until "4 ON" is displayed in the data panel. The flash will now be activated for every photograph regardless of lighting conditions.

## Manual flash-on

Activating the flash manually is recommended when taking photographs against the sun (backlight) or for pictures with extreme contrast (e.g., when the subject is in shade).

With flash photographs outdoors at twilight or at night, the background often turns out dark because the shutter speed is not slower than 1/30 second with flash in the automatic program mode to minimize camera shake.

For correct exposure of the surrounding area in such photographic situations, select the program mode "manual flash-on". Now,



## Manual flash-on and pre-flash

Press the mode selector button (6, "MODE") until the symbols "4" and "ON"

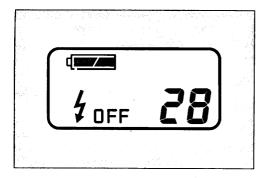
are displayed in the data panel. All further photographs will now be taken with the preflash and main flash regardless of lighting conditions.

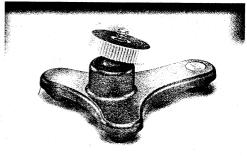
## Flash range

The available flash range depends on the chosen focal length and film speed. For best results, ensure that your main subject is within the flash range. It is preferable to use flash more towards the wide-angle range where the flash range is greater due to the higher speed of the lens in this range.

Film speed ISO/DIN			Flash range * at 35 mm	at 70 mm
50 / 18°	64 / 19°	80 / 20°	$0.6\mathrm{m} - 3.3\mathrm{m}$	$0.6 \mathrm{m} - 2.3 \mathrm{m}$
100/21°	125 / 22°	160 / 23°	$0.6\mathrm{m} - 4.7\mathrm{m}$	$0.6 \mathrm{m} - 3.3 \mathrm{m}$
200 / 24°	250 / 25°	320 / 26°	$0.6\mathrm{m} - 6.6\mathrm{m}$	$0.6\mathrm{m} - 4.7\mathrm{m}$
400 / 27°	500 / 28°	640 / 29°	$0.6 \mathrm{m} - 9.4 \mathrm{m}$	0.6 m - 6.6 m
800 / 30°	1000/31°	1250 / 32°	$0.6\mathrm{m} - 13.3\mathrm{m}$	$0.6\mathrm{m} - 9.4\mathrm{m}$
1600/33°	2000 / 34°	2500 / 35°	0.6 m - 18.8 m	0.6 m - 13.3 m
3200 / 36°	4000 / 37°	5000 / 38°	$0.6\mathrm{m} - 26.6\mathrm{m}$	$0.6\mathrm{m} - 18.8\mathrm{m}$

<sup>\*</sup> These specifications refer to color negative (print) film. With positive (slide) films, there is a reduction in range. All values are rounded off.





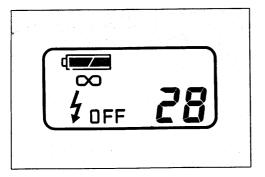
## Manual flash-off

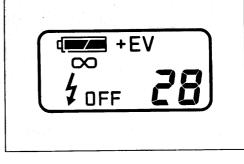
By intentionally switching the flash off, one can e.g., capture the special mood of twilight, or photograph inside a museum where flash photography is not allowed. Press the mode selector button (6, "MODE") until "OFF" is displayed in the data panel (see above). The flash will now remain off for the following photographs.

Attention: The green confirmation signal flashes when the shutter speed falls below 1/30 second which indicates risk of camera shake. In this case, steady the camera against or on a stable object, or use a tripod.

With pressure on the shutter release, the letter "B" is displayed in the LCD data panel when the camera switches to manually-controlled long exposure times. Here, the shutter remains open for as long as the shutter release button is pressed all the way down.

For photographs with long exposure times, the LEICA mini tripod is recommended as a practical accessory which fits into any pocket. See LEICA mini tripod illustration (order no. 14320).





## Taking pictures with infinity focus lock and manual flash-off \*

Infinity focus lock enables one to photograph through windows of, e.g., buses or airplanes, thus avoiding focus error due to reflection off of the glass. However, this mode is also recommended when photographing landscapes with a busy foreground to ensure that the sharpest focus point is set at the furthest distance.

Press the mode selector button (6, "MODE") until the symbols "∞" and "♠ OFF" are displayed in the data panel (see above). The lens is now set to infinity for the following photographs and the flash is switched off.

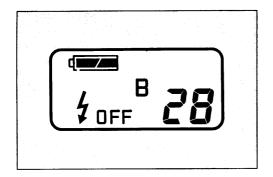
Taking pictures with infinity focus lock, exposure override and manual flash-off \*

In order to photograph, e.g., a snow landscape, it is advisable to use infinity focus lock and to correct the exposure by +2 EV by activating the exposure override. To do this, press the mode selector button (6, "MODE") until the symbols "\infty", "A OFE" and "LEV" are displayed at the

(6, "MODE") until the symbols "∞", "

✓ OFF" and "+EV" are displayed at the same time.

\* Note: Please also see page 22, automatic switch-over to "B" (long-time exposure).



Press the mode selector button (6, "MODE") until the symbols "POFF" and "B" are displayed in the data panel (see illus.). After pressing the shutter release, the frame counter in the LCD data panel shows the exposure time.

Taking pictures in "B" (long-time exposures) and manual flash-off

This function is especially suitable for night photography. The shutter, now manually controlled, remains open as long as the shutter release is pressed down. Since no light metering is done in this mode, it is advisable to take several pictures at varying long exposures times. The flash unit is switched off. It is necessary to steady the camera in some fashion, preferably on a tripod.



## Self-timer

By pressing the self-timer selector button (7) below the data panel on the top of the camera, the self-timer is activated, delaying the release of the shutter by approximately 10 seconds. During the countdown, the red LED (9) on the front of the camera lights up as follows:

7 seconds: constant 2 seconds: blinking 1 second: constant

The shutter release follows.

After pressing the self-timer button, the self-timer symbol in the data panel flashes and the remaining seconds until the shutter release is shown. To cancel the self-timer, press the self-timer selector button once more or switch the camera off.

### Automatic film rewind

The camera automatically rewinds the film after the last exposure. The frame counter counts in reverse. When the film has been fully rewound into its cartridge, the motor winder stops and a flashing "0" symbol appears in the data panel. You can now safely open the camera back and remove the cartridge.

Important: If the motor stops without the flashing "0" symbol appearing in the data panel, the battery must be replaced. Do not open the camera back because light falling on the partially rewound film will damage it. After inserting a fresh battery, the manual film rewind (22) on the bottom of the camera must be activated.

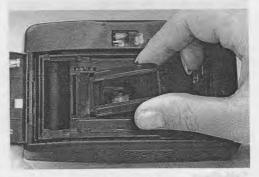


## Mid-roll film rewind

You can activate the motor winder to rewind film partially exposed by pressing the rewind switch indicated by the symbol found on the camera bottom next to the tripod thread. Press it with a ballpoint pen or similar object.

Panorama photographs

The standard 35 mm film format of the LEICA mini zoom is 24 x 36 mm and has a lateral ratio of 2:3. With use of the panorama adapter (available as accessory order no. 18510), a film format of 12 x 36 is produced with a lateral ratio of 1:3.



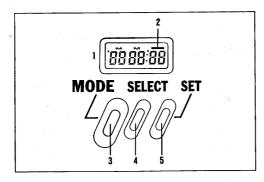
This panorama format is well-suited for landscape or group photographs. Insert the adapter on the film window of the LEICA mini zoom as shown in the illustration. The entire film will now be exposed in the panorama format.

Important: Be careful to stay within the panorama markings in the viewfinder (see p. 12). Also, there is velcro inside of the eveready case to securely store the panorama adapter.

## Trouble-shooting guide . . .

Problem	Cause	Solution
Entire image out of focus	- Camera shake during exposure	<ul> <li>Hold camera steady and press exposure release gently</li> </ul>
Main subject out of focus	- Autofocus sensors obstructed	- Keep hands, carrying strap etc. away from autofocus sensors
	- Subject too close	- Distance between camera and subject must be at least 60cm (24in.)
	- Main object not inside auto- focus frame while focusing	- Use focus memory (see p. 14)
	<ul> <li>Difficult autofocus situations, e.g., bright light sources in picture</li> </ul>	- Use focus memory on alternative subjects that are at a similar distance (see p. 15)
	- Subject photographed through window pane, e.g., from a bus or airplane	- Set lens to infinity focus lock mode (see p. 23, 24)
	<ul> <li>Camera set to infinity</li> </ul>	- Change mode (see p. 16)
Picture blurred or partially out of focus	- Lens is not clean (water marks, fingerprints)	- Clean lens (refer to "Helpful tips on camera care, p. 32)

Problem	Cause	Solution
Picture too dark or partially too dark	<ul><li>Lens or flash unit obstructed</li><li>Camera / subject distance too great for flash exposures</li></ul>	<ul><li>Keep hands, carrying strap etc. away from lens and flash unit</li><li>Stay within the flash range or use a higher speed film</li></ul>
Shutter release button blocked	<ul><li>Camera not switched on</li><li>Battery is dead</li><li>Battery contacts soiled</li></ul>	<ul> <li>Switch on camera (see p. 7)</li> <li>Change battery (see p. 4, 5)</li> <li>Wipe battery contacts</li> </ul>
	(oxidized) - Flash still recycling	<ul> <li>clean</li> <li>Wait briefly until the flash is ready (see p. 13, 17)</li> </ul>
	- Subject too close	- Increase subject distance to at least 60 cm (24 in ) (see p. 12)
	<ul> <li>Film in camera has rewound and cartridge is still in camera</li> </ul>	- Take out film cartridge (see p. 25, 26)
	- Program error	<ul> <li>Take out battery and re-insert it</li> </ul>
Shutter release blocked and the frame counter in data panel flashes	1 - Film advance malfunction	- Rewind film via rewind switch (see p. 26)



#### Data back

The LEICA mini zoom is available with or without data back.

With the quartz controlled data back, the date (day, month, year - in three different sequences), or the time (day, hour, minute) can be imprinted onto the film at the moment of exposure (see p. 31). The automatic calender extends to the year 2019. The date or time can be read in the lower

The date or time can be read in the lower right corner of the photograph. The imprinting of the data is controlled by the LEICA mini zoom's automatic film speed setting (DX-coding). The data back is powered by the camera battery.

- 1. LCD-data back display
- Display for marking the film flashes for approximately 2 s. after successful data imprinting.

## 3. MODE

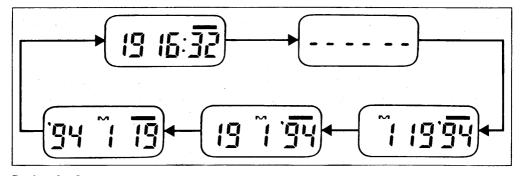
Push button for setting the data display and for switching off data imprinting. Every time the button is pushed, the display changes in sequence (see diagram on page 30). The month is marked with the letter "M" (doesn't appear on film). The dashes (-- -- -) visible in the display when the data imprint mode is set to off, are **not** imprinted on the film.

## 4. SELECT

Push button for selecting the individual data to be set.

## 5. SET

Push button for setting the individual data. By pressing briefly the value is changed by one in ascending order. Holding the button down longer causes the values to change quickly.



## Setting the data

By pushing the SELECT button, you can choose that part of the display to be set. The display for "imprinting" disappears and the part of the display selected flashes. In the data display, pushing the button the first time selects the 'year' display; pushing once more selects the 'month' and once more sets the 'day' display. In the time display, the 'hour' is set first, followed by 'minutes'. When pushed again, the colon between 'hour' and 'minutes' blinks. The blinking data are set by pushing the button "SET". When the colon blinks in the time display, pressing the "SET" button sets the clock

to zero seconds. Pressing the "SELECT" button another time concludes the setting procedure and the display symbol for imprinting lights up again.



#### Imprinting data

By pressing the MODE button, you can select the desired date or time display. The approximate position and size of the imprinted data can be seen in the photograph shown on page 31. Intensity control for correct imprinting of the data is carried out via the LEICA mini zoom's automatic film speed setting (DX-coding). The data are imprinted on the film from behind by means of an LCD element.

Data legibility on the photograph may vary slightly depending on the film used. On some films, such as Kodachrome 64, the data are sometimes very faint or not visible at all. On dark subjects, the data appear red to orange, on lighter subjects, orange to yellow. For this reason, imprinted data are sometimes barely legible in bright, orangetinted or very "busy" areas of the photograph. After imprinting, the display will flash for approximately 2 seconds.

#### Helpful tips on camera care

Use a soft lens brush or a dry, soft, clean cloth (e.g. a clean cotton handkerchief) to remove dust on the outer lens surface. Avoid touching the part of the cloth used before beginning to clean. Special lens cloths such as those sold for cleaning eyeglasses are not recommended. They often contain chemicals that may damage the optical glass. (The composition of glass used for eyeglass lenses is different from that used in camera lenses). Alcohol and other chemical solutions should not be used to clean the camera body. When necessary, clean the camera with a soft, dry cloth. Do not expose your LEICA mini zoom to hard knocks, heat or moisture. Extremely low temperatures affect the functioning of your camera. In cold weather, keep your LEICA mini zoom in a warm inside pocket. Avoid abrupt changes of temperature from hot to cold, as this may cause condensation and affect the camera's functions. Should condensation form, this will disappear after a while in warm, dry conditions. To avoid expensive repairs or total loss, do not allow your LEICA mini zoom to become wet.

While not in use, keep the camera in a cool, dry place free from dust and chemicals. Always keep the mode control buttons free from dirt and perspiration. They can be carefully cleaned with a clean, dry cloth. Do not exert excessive pressure on the LCD data panel. The LCD data panel has been designed for use in temperatures from approximately 0° to +40°C (32° to 104°F). At lower or higher temperatures, the legibility of the LCD data displayed may deteriorate. In certain cases, high temperatures may even cause the LCD data panel to darken.

*Important:* The camera contains high-voltage electronic components. Under no circumstances should the camera body be unscrewed or broken apart. High voltages can be dangerous.

#### **Customer Service**

For servicing and in the unlikely case of damage to your LEICA mini zoom, the service department of your national Leica Camera agency (refer to warranty card) is at your service. Consult your authorized Leica Camera dealer for assistance.

#### Technical Data

Type: Super-compact autofocus 35 mm rangefinder camera with automatic exposure program and built-in flash.

Lens: LEICA VARIO-ELMAR 35-70 mm f/4.0-7.6 (7 lens elements in 6 groups).

Focus range: From 60 cm (24 in.) to infinity. Separate infinity focus lock for, e.g., landscape photography or when taking pictures through glass.

Autofocus system: Active infrared autofocus. Exposure memory and focus lock with slight pressure on shutter release.

Metering system: Automatic program with automatic flash activation.

Metering method: Integral - center weighted.

Memory: Focus is locked and metered value saved with continuous slight pressure on shutter release button.

Meter working range: (all data at ISO 100/21°)

For the modes: automatic program, automatic program with pre-flash, and infinity focus lock and exposure override:

At 35 mm focal length: from exposure value Ev 9 (1/30 s and f/4.0) to Ev 17 (1/300 s and f/20). At 70 mm focal length: from exposure value Ev 11.6 (1/50 s and f/7.6) to Ev 17 (1/200 s and f/25).

At exposure values below Ev 9 (35 mm) and Ev 11 (70 mm), the flash is automatically activated when in automatic program mode.

For the modes: Manual flash-on, manual flash-on with pre-flash and manual flash-off:

At 35 mm focal length: from exposure value Ev 6 (1/4 s and f/4.0) to Ev 17 (1/300 s and f/20).

At  $70 \, \text{mm}$  focal length: from exposure value Ev 7.9 (1/4s and f/7.6) to Ev 17 (1/200s and f/25).

Shutter speed range: 1/4 s to 1/300 s; Manually controlled long-time exposures in "B" mode.

Exposure override: +2 EV, manual, can be activated as well in infinity focus lock mode.

Automatic flash: Flash automatically activated in low light. Manual ON/OFF capability at any time. Pre-flash to reduce "red-eye" effect in automatic program mode and manual flash-on.

Flash range (ISO 100/21°):

At 35 mm from 0.60 m to 4.7 m (24 in. to 15.42 ft.). At 70 mm from 0.60 to 3.3 m (24 in. to 10.83 ft.).

Flash recycling time: About 5 seconds with a fresh battery.

Film speed setting: Film speed automatically set for DX-coded films with ISO 50/18°, 100/21°, 200/24°, 400/27°, 800/30°, 1600/33°, 3200/36°. With non-DX-coded films, the camera is set at ISO 100/21°.

Viewfinder: Albada finder with markings for autofocus area measured, frame lines for close-range and panorama photographs. Flash confirmation signal via red LED diode. Autofocus and exposure confirmation signals indicated by green LED diode.

Viewfinder magnification: 0.33 x at 35 mm focal length, 0.61 x at 70 mm focal length. Finder coverage 85 % of film format.

Film transport: Automatic film threading and advance to first frame. Motorized advance after each exposure, frame counter increases by 1 after each exposure. Continuous shooting by holding down shutter release. Automatic rewind after last exposure. Midroll rewind possible.

Data panel: Liquid crystal display (LCD) indicates: battery status, frame count, EV-exposure override, long-timed exposure, self-timer, film loaded, film rewinding, flash-on and pre-flash activation, flash-off and infinity focus lock. Display stays on for about 60 seconds after battery is removed.

**Self-timer:** 10 s countdown; indicated by diode (LED) on front of camera and countdown in LCD data panel. Activated by separate button.

Power supply: Long-lasting  $3\,V$  lithium battery (CR 123 A).

Camera on/off control: Main center switch on camera top. Lens travels to ready transport position. Camera automatically shuts off flash and the display after approximately 5 minutes (standby mode).

#### Program modes:

Automatic program mode with automatic flash.

Automatic program mode with automatic flash and pre-flash.

+EV Automatic program mode with automatic flash and exposure override.

**∮ON** Manual flash-on.

44ON Manual flash-on and pre-flash.

**∮**OFF Manual flash-off.

Infinity focus lock and manual

**∮OFF** flash-off.

∞EV Infinity focus lock, exposure override

**♦OFF** and manual flash-off.

B Long-time exposures "B" and manual **4**OFF flash-off.

Every program mode remains in effect until another mode is chosen or the camera is turned off.

Camera body: Ergonomic LEICA design. Side attachment of neck or wrist straps. Tripod mount: A 1/4 DIN 4503 (1/4").

Data back: Camera available with or without data back. Imprints the day and time, or date on the film. Quartz controlled clock and automatic calender up to year 2019. Intensity controlled by automatic DX-coding feature of camera.

Dimensions: With or without data back: Length 123 mm / Height 71.5 mm / Depth 43 mm.

Weight: Approx. 230 g (without batteries).

#### Accessories:

Leather eveready case (order no. 18505). Mini tripod (order no. 14320). Panorama adapter (order no. 18510).

## Manufacturer's / Importer's Certificate

This is to certify that the

LEICA mini zoom -35 mm Rangefinder Camera (Optical Instrument / Type / Name)

has been radio-screened in accordance with the provisions of

1046 / 1984

(Legislative reference)

The German Bundespost was informed that the above mentioned optical instrument would be placed on the market and permission was given to them to inspect this series of instruments regarding its compliance with the respective provisions.

Leica Camera GmbH, D-35606 Solms Manufacturer's / Importer's Name VARIO-ELMAR 35-70 mm f/4-7.6

