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LEICA

Instructions

LEICA minilux



www.orphancameras.com

We wish you much pleasure and successful photography with your new LEICA minilux. Thanks to its top optical performance, the high speed LEICA SUMMARIT f/2.4/40 mm lens permits photographs of excellent quality even in bad lighting conditions. The LEICA minilux will soon become your constant companion due to its extremely compact dimensions that allow it to fit into just about any pocket. With the fully automatic program control and flash function, the minilux supports trouble-free photography. At the same time, the manual functions give the user the freedom to compose the photographs as he wishes. In order for you to enjoy the full spectrum of possibilities that your LEICA minilux offers, we recommend that you start by reading this instruction booklet.

Note: 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 - a complicated procedure that preserves the environment, especially natural water resources.

Brief Description

The LEICA minilux is a compact and versatile autofocus 35 mm rangefinder camera, designed for easy and creative photography. Its special features include:

- LEICA SUMMARIT f/2.4/40 mm (6 elements in 4 groups)
- Titanium housing, partially covered with leather
- Infrared autofocus (focus range from 70 cm to infinity)
- Alternative manual focusing
- Center-weighted integral metering with exposure memory
- Automatic program mode (automatic shutter speed and aperture setting)
- Automatic shutter speed setting (manual exposure setting)
- Exposure correction (override) in half aperture values +2 EV to -2 EV
- Built in flash unit
- Automatic flash-on in insufficient lighting conditions

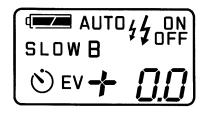
- Manual on/off flash
- Pre-flash option to reduce "red-eye" effect
- Long-time exposures (B)
- Long-time exposures with automatic flash-on
- Motor powered film advance
- Series exposure release, one approx. every
 2 seconds (without flash)
- Automatic film speed setting (DX-coding)

	<u>.</u>
① Function selector (on/off, automatic program mode, manual exposure setting) ② Focus dial (auto or manual focusing) ③ Shutter release button ④ LCD data panel (Liquid Crystal Display) ⑤ Self timer LED ⑥ Autofocus sensors (concealed system) ⑦ Viewfinder window ⑧ MODE button ⑨ Exposure override button (EV) ⑩ Self-timer button ⑪ Flash ⑫ Sensor for exposure meter ⑬ LEICA SUMMARIT f/2.4/40 mm lens ⑭ Anchor for carrying straps	Table of ContentsPageLCD data panel4Compatible batteries5BatteryInsertion5Checking5Changing6Attaching the carrying straps7Switching the camera on / off7Compatible 35 mm film8Loading the film8Holding the camera10Viewfinder display12Taking pictures13Taking pictures with autofocus14Focus and exposure memory14
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ⓑ Camera back
ligaria Green confirmation signal
🛈 Red confirmation signal
® Viewfinder eyepiece
🗐 Film window, showing loaded film 🧵
Battery compartment cover
② Tripod thread 1/4" (A1/4 DIN 4503)
② Button for manual film rewind
② Electric cable release socket
Back cover release



4 OFF B # OFF EV + 2.00.0 125/5.6 = manual flash-off = long-time exposure

(flash is off) = exposure override +/-2 EV

= display of the change functions shutter speed / aperture

frame counter

LCD Data Panel

= battery function symbol

AUTO 4

= universal program

(automatic program mode with automatic flash-on)

AUTO 14

= self-timer indicator = automatic flash with pre-flash

activated

4 ON

= manual flash-on

44 ON

= manual flash-on with pre-flash

SLOW # ON = manual flash-on (also for long-time exposures)

SLOW 14 ON = manual flash-on and pre-flash (also for long-time exposures) Note: A LCD data panel illumination is activated automatically in low lighting conditions. It is possible that it starts to flicker while the flash is loading.



Compatible 3 volt lithium batteries

for example:

DURACELL DI 123 A KODAK K 123 I A PANASONIC CR 123 A VARTA

CR 123 A. etc.

Inserting the battery

The LEICA minilux is powered by a 3 volt lithium battery (e.g. CR123). To insert the battery, open the battery compartment cover (camera bottom, 20) with a coin (turn counterclockwise!). Insert the lithium battery with the plus pole facing forward (as indicated in the battery compartment). Close the cover and turn clockwise.



Checking the battery

Switch the camera on (see p. 7). The protective lens cover then automatically opens and the lens (13) moves to the "ready" position. If the symbol appears together with other display symbols (4), then battery power is sufficient. When the symbol or no symbol at all appears, then the battery is just about empty and should be replaced as soon as possible. If the symbol blinks or is not at all visible, then the battery is empty and must be replaced immediately. In this case the shutter cannot be released. If the lens does not move into the "ready" position after switching the camera on, the battery may be low, inserted incorrectly or missing.

When only the **T** symbol is blinking or no symbol is visible, it is possible that the battery contacts are dirty. Is this is the case, the battery contacts must be wiped off with a clean, dry, lint-free cloth.

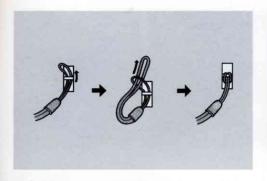
After a series of exposures in close succession, the symbol may appear. Before making further exposures, pause briefly to allow the battery to recover.

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

Changing the battery

When there is a film in the camera, insert a new battery immediately after removing the old one. If the camera is left without a battery for more than 10 minutes, the frame counter in the LCD 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 carrying straps

A longer carrying strap (approx. 50 cm) is also available as an accessory (order-no. 18 518).

Soft leather case, ever-ready case

The soft leather case* (order-no. 18 507) remains connected to the carrying strap when the latter is pulled through the loop found inside the case.

The leather ever-ready case* (order-no. 18 506) has a carrying strap with a non-slip pad and a removable front cover.



Switching the camera on/off

To do this, turn the function selector (1) counter to "P" or turn to one of the aperture f-stops. The protective lens cover opens, the lens extends to the "ready" position and the display appears in the LCD panel.

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

^{*} available as accessory

When the camera shutter is not released for approximately 5 minutes after being switched on, the data panel display and the flash are automatically turned off. The lens remains in the "ready" position. With a light touch on the shutter release, all electronics are activated and the camera is immediately ready to shoot. This function is to prevent unnecessary battery use and thus, extend battery life.

Compatible 35 mm films

The LEICA minilux automatically sets the film speeds between ISO 25/15° and ISO 5000/38° for DX-coded 35 mm films (film package and cartridge are marked "DX").

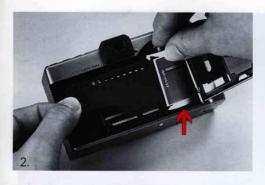
For films without DX-coding, the speed is automatically set to ISO 100/21°.

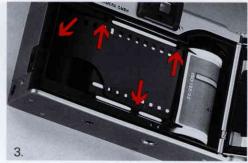


Loading the film

Attention: If there is film in the camera, ensure that it is rewound before opening the back cover (see "Automatic film rewind of exposed film" and "Automatic film rewind of partially exposed film", page 29). Otherwise, light will damage any exposed film. Don't open the back cover unless the frame counter is set at "O". To prevent light from hitting the film, load or remove it in low light for example in your own shadow.

 Unlatch and open the back cover (15) by moving the sliding cover release (24).





- Load the film cartridge into the film chamber as shown. It is important that the rewind axis fits into the corresponding socket on the base of the film cartridge.
- 3. Ensure that it is laid flat between the film guides with the film tip extending over the winding spool up to the marking "Film Tip" to the left of the spool. If you have pulled out too much of the film, carefully wind it back into the cartridge.
- 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 "1", the film is not loaded properly. Reopen the camera back, remove the film and reinsert it as described from points 2 to 4.





Holding the camera

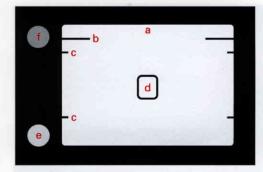
To avoid shaking the camera, hold your LEICA minilux as shown in the photographs. Also make sure that the lens, flash, autofocus sensors and exposure meter window are not covered by your hand, or carrying strap, etc.

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

To minimize camera shake, it is also advisable to use your thumb to press the shutter release for vertical format photography.







Viewfinder display

a: Complete visible area:

the frame lines visible in the viewfinder show the picture area of the lens.

b: Close-up frame markings:

For close-up photography, the viewfinder image of the lens picture area is shifted upwards. This parallax becomes all the more apparent the shorter the focusing distance. The close-up range markings in the viewfinder of the LEICA minilux applies to the shortest range of 0,7 m (27 in). 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. As the focusing distance increases, the picture area

cut decreases and becomes insignificant from about 1.5 to 2 m (5 ft to 6.5 ft).

c: Markings for the panorama format: with the use of the panorama adapter, see p. 30 (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 that is to be in sharp focus is in this frame (it is not necessary that it fills the frame)

e: Green confirmation signal:
if this signal lights up when the shutter release button is pressed lightly, it is an indication that focus point and exposure have
been measured and stored in memory.

The green confirmation signal flashes:

- in the "manual flash-off" operating mode or in the "SLOW"-mode, as a warning signal for possible camera shake due to insufficient lighting (picture can still be taken)
- as a warning signal for overexposure independent of the operating mode (picture can still be taken)
- when, while using the autofocus mode the distance between camera and subject is too small (under 70 cm (27 in)). The shutter release will be blocked in this case.

f: 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 loading time is about 5 seconds when the batteries are fresh.

Taking pictures

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

Determine the photo composition. While doing so, aim the camera so that the main subject or portions thereof are within the autofocus frame area. Now lightly press the shutter release button (3) (to the pressure point). When the green confirmation signal (16) appears in the viewfinder, press the shutter release button down fully to take the picture. The camera then advances the film to the next frame and the frame counter in the LCD data panel increases by one.



Please note:

If the shutter release is not heard due to surrounding noise, the sound of the following film advance confirms that the exposure has indeed taken place.

If the shutter release button is kept pressed down, as many pictures as you choose can be taken in a row. With this continuous shutter release mode, it is possible to capture for example, action sequences. **Focus setting**

The LEICA minilux offers not only a fully automatic focus setting, but also the option to set the focus range manually.

Taking pictures with autofocus

Turn the focusing dial (2) clockwise until the green marking "AF" is next to the green marking "P" for automatic program mode. In this mode, the camera automatically focuses from 0,70 meters (27 in) to infinity.

For photographs where the main subject is offcenter or for subjects with which the focus setting might become a problem due to physical reasons, the focus memory feature or the manual focus setting should be used.

Physical AF-disturbances can be expected due to:

- bright light sources in the picture (floodlights, light bulbs, etc.)
- very shiny or reflecting surfaces such as polished surfaces on a car, water, and mirrors
- bright transparent objects like flames, windows, fireworks and hair
- dark objects and surfaces with little reflection
- objects behind glass (e.g. store window, show-case)



Focus and exposure memory

For photographs where the main subject matter is off-center (picture above), the focus storage feature is 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 (Picture above).

Keeping the shutter release button pressed down slightly, compose your picture as you wish. When ready, press the shutter release down fully to take the picture (Picture above right).



When an autofocus disturbance is to be expected due to the physical reasons stated afore, focus on an alternative object that is at the same distance and similarly lit. Storing the focus and exposure as described, you can now successfully take your picture.

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



Manual focusing

Set the focus dial (2, graphics, page 17, left) to the estimated distance of the subject that is to be photographed (photo, right). The depth of field for each pre-set focus dial value can be taken from the following chart.

Note: When the aperture of the LEICA minilux lens is fully open (2.4) and the manual focus is set to 13.5 m, the depth of field of approx. 8 m to 50 m is sufficient. For an ∞ setting, from approx. 19 m to infinity will do. For this reason, a special distance setting between 13.5 m and ∞ is not necessary (see chart on the right).

Set Value (in m)	Depth of Field (in m) at f/stop					
(in m)	2,4	4	5,6	8	11	16
0,7	0,68	0,67	0,65	0,64	0,61	0,58
	-0,72	-0,74	-0,75	-0,78	-0,82	-0,88
	0,82	0,80	0,78	0,75	0,72	0,68
(0,85)	-0,88	-0,91	-0,93	-0,97	-1,03	-1,14
1	0,95	0,93	0,90	0,87	0,82	0,77
	-1,05	-1,08	-1,12	-1,18	-1,27	-1,44
(1,4)	1,31	1,26	1,21	1,15	1,07	0,98
	-1,50	-1,57	-1,66	-1,80	-2,03	-2,51
2	1,82	1,72	1,63	1,51	1,38	1,22
	-2,22	-2,38	-2,59	-2,95	-3,69	-5,70
·	2,21	2,08	1,94	1,78	1,59	1,39
(2,5)	-2,86	-3,14	-3,51	-4,22	-5,93	-13,97
3,5	2,96	2,72	2,49	2,22	1,93	1,63
	-4,27	-4,92	-5,92	-8,32	-19,53	-∞
(5)	3,96	3,53	3,15	2,74	2,31	1,89
	-6,77	-8,58	-12,21	-30,46	-∞	-∞
7	5,12 -11,08	4,42 -17,00	3,83 - 41,66	3,23	2,65 -∞	2,11
	7,88	6,32	5,18	4,14	3,22	2,45
(13,5)	-47,47	-∞	-∞	-∞		-∞
∞	18,78 -∞	11,78 -∞	8,35 -∞	5,91 -∞	4,20 -∞	2,98



Automatic program mode with manual focus



Automatic program mode with autofocus function



Aperture priority with autofocus function



Aperture priority with manual focus

Exposure control

With the LEICA minilux, one can take pictures with fully automatic exposure control (automatic program mode), as well as with manual aperture selection.

Automatic program mode

This is the right program with which one can always be prepared to shoot - perfect for easy photography. Set the function selector to "P" (graphics above center). The camera now controls the exposure fully automatically. In low lighting the flash is automatically switched on (see page 21).

Displays:

When a light pressure is applied to the shutter release, the automatically set shutter speeds and f/stop values are shown alternately in the LCD data panel. The displayed combination is stored as long as the shutter release button is held down. By pressing the shutter release button lightly again, a new measurement can be taken.

Aperture priority with manual aperture selection

The LEICA minilux automatically controls the shutter speed according to the selected f/stop. This aperture control is especially suitable for specific use of the depth of field, e.g. for landscape, architecture or nature photography.

Set the desired aperture with the function selector (graphic 3, page 17). The appropriate shutter speed is set automatically and displayed in the data panel when the shutter pressure point is reached.

In the operation modes "SLOW" and "OFF"; between 1 and 1/400 s and in all other flash modes; between 1/60 and 1/400 s.

Displays:

When a light pressure is applied to the shutter release, the automatically set shutter speeds and the f/stop in half values are shown alternately in the LCD data panel. The displayed combination is stored as long as the shutter release button is held down. By pressing the shutter release button again lightly, a new measurement can be taken.

Attention:

If the green light diode and the exposure display "400" in the LCD data panel flash, it is a warning of overexposure. In this case select a smaller aperture.



Exposure override

Exposure meters are set according to a middle gray value which reflects about 18% of the occurring light. Most photographic scenes have similar average reflection characteristics. When a scene does not measure to this value, an exposure override is necessary.



Example for correction to "+"

In extremely bright surrounding scenes, for example, with snow or on the beach, the exposure meter sets a relatively short shutter speed due to the high amount of light reflections. The snow would be recorded as a middle gray and pictured people would be far too dark: underexposure!

In order to lengthen the shutter speed, an override setting of e.g. +2 EV (EV / Exposure Value) must be made.



Example for correction to "-"

For scenes with very dark surfaces which reflect little light, the exposure meter sets too long a shutter speed. For example a black car in front of a dark background would become a gray car and people would be pictured too light: overexposure!

To shorten the shutter speed an override setting of, for example -1 EV must be made.

To display the override setting, press the "EV" exposure override button (9) on the top of the camera. The set value will be shown in the LCD data panel for about 2 seconds. To change the setting, hold the button down for about 3 seconds until the display starts to blink. Now press the button down as often as necessary until the desired value is reached. The setting occurs in half "EV" values. Three seconds after the last entry, the display disappears and the set exposure override value is stored. All of the pictures now made occur with the selected exposure correction, until a new value is entered. The display "EV" appears in the LCD data panel as an indication of the activated exposure override.

Attention! The stored EV value still remains after switching off the minilux. It can only be erased for normal conditions by entering the value "0".

Taking pictures with and without the flash

The LEICA minilux has a built-in flash that can be switched on or off manually or automatically, depending on the chosen program mode. It is additionally possible to take pictures with the pre-flash feature to minimize the "red-eye" effect.

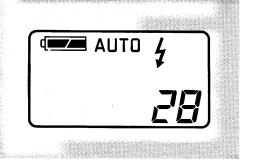
Important: Make sure that the main subject is within range of the flash (see page 25).

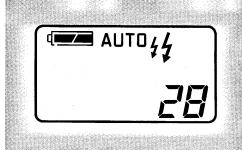
Flash and long-time operating modes "MODE"*

When switched on, the camera is set to the "automatic flash-on" "AUTO f" operating mode. Combined with "P" (automatic program mode), the LEICA minilux is always ready to shoot.

With the "MODE" button (3), all other operating modes can be selected, with or without flash and also combined with long exposures times. The operating mode sequence repeats itself when the button is pressed. Each of the operating modes remains until a new one is selected or until the camera is switched off.

^{*} see graphic on the front cover page.





Taking pictures with automatic flash-on ("AUTO **)

In this mode, which is set when the camera is turned on, the flash is automatically activated when, due to a longer shutter speed than 1/60, camera shake could be caused, for example in dark rooms.

This mode is indicated in the data panel with "AUTO **f**".

When the flash unit is ready, the red confirmation signal lights up when the shutter release button is pressed lightly.

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

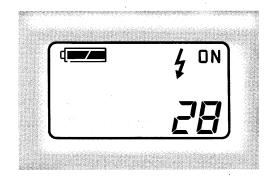
Taking pictures with automatic flash-on and pre-flash ("AUTO 14")

With flash portrait photography, an undesirable "red-eye" effect is possible when the flash is reflected directly to the camera from the retina of the eye. Therefore, the person being photographed should not look directly into the camera. In low light, this effect is especially pronounced due to dilated eye pupils. For this reason, when 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 into the direction of the camera.

Press the "MODE" selector button (8) once. The data panel will display a double flash symbol "AUTO 14".

Taking pictures with manual flash-on

If necessary, the flash can be activated manually, that is, the automatic flash-on can be switched off.



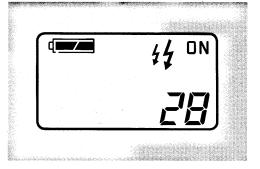
Manual flash-on

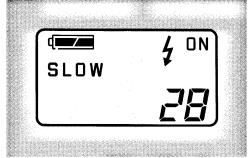
Activating the flash manually is recommended when taking photographs against the sun (backlight) or for pictures with extreme contrast (e.g., when the subject is in the shade).

To activate the flash manually, press the "MODE" button (8) repeatedly until f ON is displayed in the data panel. The flash will now be activated for every photograph regardless of lighting conditions.

When the flash unit is ready, the red confirmation signal lights up when the shutter release button is pressed lightly.

The red flash confirmation signal flashes rapidly and the shutter release is blocked as long as the flash is not ready.





Manual flash-on and pre-flash

Press the "MODE" button (8) repeatedly until "14 ON" appears in the data panel. All following pictures will now be taken with the preflash and main flash regardless of lighting conditions.

Manual flash-on with long time exposures

When flash photos are taken outside, at twilight or in night lighting, the background is often underexposed. This is because the shutter speed - in automatic flash-on for example - is not longer than 1/60 seconds. This is to avoid camera shake.



When flash photos are taken in the "automatic program" mode, the surrounding light is ineffective (1/60s)



In the "SLOW † ON" and "SLOW †† ON" modes the flash becomes an effective additional light which accents the foreground (the ambient light determines the length of the exposure time)

To bring out the ambient light in cases like these, the exposure time may even have to be lengthened to the long-time exposure time "B" (see example above).

To do so, press the "MODE" button (8) repeatedly until "SLOW#ON" appears in the data panel. The flash will now be activated for each following photograph, regardless of the lighting conditions.

Important: The surrounding light controls the length of the exposure time up to the long time exposure "B".

When the *green light diode flashes*, it means that there is a *chance of camera shake* because the shutter speed is below 1/60 second. In this case, steady the camera against or on a stable object, or use a tripod.

In low lighting, the camera position must not be changed until the film transport has occurred, even after the flash!



Manual flash-on and pre-flash with long time exposures

The long time exposure flash mode can also be combined with the pre-flash feature to reduce the "red-eye" effect.

Press the "MODE" button repeatedly until "SLOW ##ON appears in the data panel. All following photographs will now occur with the preflash and main flash activated, regardless of the lighting conditions.

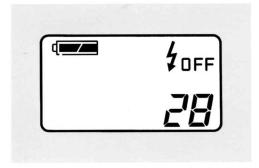
Attention! Camera shake is still possible in spite of the flash (see also "Manual flash-on with long time exposures", page 23)!

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.

film speed (in ISO/°DIN)				Flash range*
	50/18°	64/19°	80/20°	0,7 m - 5,1 m
	100/21°	125/22°	160/23°	0,7 m - 7,2 m
	200/24°	250/25°	320/ 26°	0,7 m - 10,2 m
	400/27°	500/28°	640/29°	0,7 m - 14,4 m
	800/30°	1000/31°	1250/32°	0,7 m - 20,3 m
	1600/33°	2000/34°	2500/35°	0,7 m - 28,8 m
	3200/36°	4000/37°	5000/38°	0,7 m – 40,7 m
				*with f/stop 2.4

These specifications refer to color negative (print) film. For positive (slide) films, there is a reduction in range. All values are rounded off





By intentionally switching the flash off - one can, for example, capture the special mood of twilight, or photograph inside of a museum where flash photography is not allowed.

Press the "MODE" button (8) repeatedly until "*JOFF" appears in the data panel. The flash will now remain off for all following photographs.

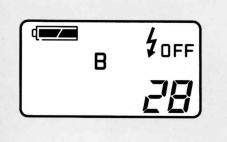
With light pressure on the shutter release, the letter "B" is displayed in the LCD data panel when the camera is switching to manually-controlled long-time exposures. Here, the shutter remains open for as long as the shutter



We recommend the LEICA mini tripod as a practical accessory which fits into any pocket (order-no. 14 320).

release button is pressed all the way down. The length of the exposure time can be read in seconds in the LCD data panel.

When the green light diode flashes, it means that there is a chance of camera shake because the shutter speed is below 1/60 second. In this case, steady the camera against or on a stable object, or use a tripod.





Long-time exposure "B" with manual flash- off

This mode is especially suited to night photographs. The shutter remains open as long as the shutter release is pressed down all the way. The flash is switched off. In this operating mode, no exposure measurement takes place so it is recommended to take several pictures with different exposure times. In the automatic program mode "P" the f/stop is set at 2.4. The length of the shutter speed can be read in the LCD data panel. It is necessary to steady the camera on a stable object or to use a tripod.

For long-time exposure releases without shaking: the electric cable release, order-no. 18 540, see also page 28

Press the "MODE" button (8) repeatedly until the symbol "##OFF / B" appears in the data panel. By exerting further pressure on the "MODE" button, the camera returns to the "automatic flash-on" mode "AUTO *#".

Cable release (accessory, not included)

The cable release (order-no. 18 540) is handy to ensure shake-free shutter releases of the LEICA minilux (e.g. for night photos with long shutter speeds). It is connected on the left side of the camera housing (socket 23).

Attention: Only cable releases with a coupling plug (2,5 mm) can be attached to this socket. Mechanical releases must under no circumstances be connected. Malfunction or even a camera defect would be the consequence!

Self-timer

By pressing the self-timer selector button "#" on the top left of the camera, the self-timer is activated, delaying the release of the shutter by approximately 10 seconds. During the countdown, the red LED (5) on the front of the camera, lights up as follows:

7 seconds: constant2 seconds: flashing1 second: constant

- The shutter release follows.

At the same time, the remaining seconds are counted down in the data panel.



Please note: In the autofocus mode, the distance measurement occurs just before the shutter release!

The started self-timer can be stopped again at any time by pressing the self-timer selector button again or by switching the camera off.

Automatic rewind of exposed film

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

Important: If the motor stops and the "0" in the data panel does not flash, then 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 film rewind on the bottom of the camera must be activated manually.



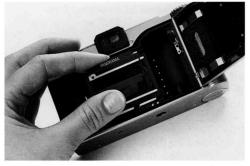
Rewinding a partially exposed film

The motor film rewind can be activated manually at any time, for example to have a partially exposed film developed. To do so, press in the activator button "R" (22) at the bottom of the camera with a ball-point pen or similar object.



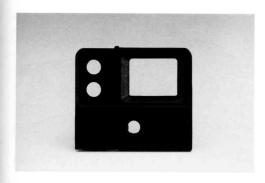


The standard 35 mm film format of the LEICA minilux is 24×36 mm and has a lateral ratio of 2:3. With the use of the panorama adapter (available as accessory, order-no. 18 511), a film format of 12×36 is produced with a lateral ratio of 1:3. This panorama format is well suited for landscape or group photographs.



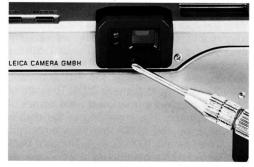
Insert the adapter on the film window of the LEICA minilux as shown in the illustration. The entire film will now be exposed in the panorama format.

Important: Be careful to stay within the panorama markings in the viewfinder (see p. 12).





To make taking pictures without eye glasses possible, Leica offers correction lenses in diopter values of plus 1 (order-no. 18 530) and minus 1 (order-no. 18 531).



Note: When exchanging the neutral protection glass with the desired correction lens, please pay attention that the glass can still adhere to the housing after loosening the screw (below the viewfinder eyepiece). Remove carefully with a fingernail. Only touch the correction lens at the edge!

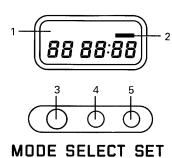
Data back (accessory)

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 photo, page 35). The automatic calendar extends to the year 2019. 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 minilux's automatic film speed setting (DX-coding). The data back is delivered with a battery (battery change see page 37).



Changing the camera back

Unlock the camera back with the slider (24) and open. Pull out the hinge pin with your fingernail or an appropriate tool and unhook the back from it's hinge. To mount the data back, hold the hinge pin up in the same manner and let it engage onto the housing.

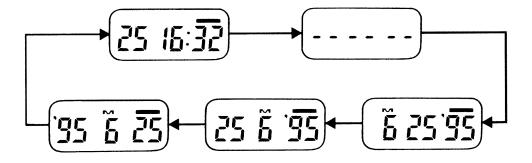


- 1 LCD data panel of the data back
- 2 Display to be imprinted. It flashes for approx. 2 seconds after imprinting has occurred.
- 3 MODE

Button to select the data-presentation and to switch off the data imprinting. Every time this button is pressed, the display changes in sequence (see diagram on page 34). The month is indicated 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 to select the individual data to be set
- 5 SET
 Push button for setting the individual data.
 By pressing briefly, the value is increased by one. Holding the button down longer

causes the values to change quickly.



Setting the data

By pressing the SELECT button, you can choose the part of the display to be set. The display for imprinting disappears and the selected part of the display flashes. In the date 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'.

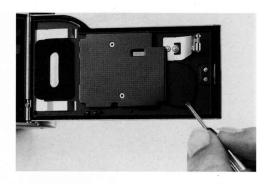
When pushed again, the colon between 'hour' and 'minutes' flashes. The flashing data is set by pushing the "SET" button. When the colon flashes in the time display, pressing the "SET" button sets the clock to zero seconds. Pressing "SELECT" button one more time ends the setting procedure and the imprinting display lights up again.



Imprinting the 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 35. Intensity control for correct imprinting of the data is carried out via the LEICA minilux's automatic film speed setting (DX-coding). The data is imprinted on the film from behind by means of an LCD element.

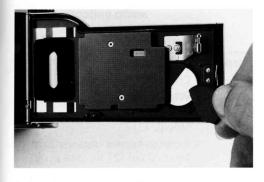
Data legibility on the photo may vary slightly depending on the film used. On some films, such as Kodachrome 64, the data is sometimes very faint or not visible at all. On dark backgrounds, the data appears red to orange, on lighter backgrounds; orange to yellow. For this reason, imprinted data is sometimes barely legible on bright, orange-tinted or very "busy" areas of the picture. After imprinting, the display will flash for approximately 2 seconds.



Changing the battery

The quartz-controlled clock, the LCD display and the imprinting are all powered by a 3 volt lithium cell (CR 2025 or similar), which is already inserted upon purchase of the camera.

When the LCD display becomes faded or difficult to read, the battery energy is no longer sufficient for proper data-imprinting on the film. To change the battery, open the data back, remove the empty battery and insert a new one.



- 1 Loosen the screw with a screwdriver and open the battery compartment cover.
- 2 Remove the old battery and insert a new one with the plus (+) side up.
- 3 Replace the battery compartment cover and push down until it engages.
- 4 Tighten the screw with the screwdriver.
- 5 Reset the date and time display.

In the case that the battery has not been inserted correctly or if the battery is already empty, no display will appear. Insert the battery again, possibly after wiping the contacts with a clean, dry cloth, and try again. If still no display appears, use a fresh battery.

Attention: Keep batteries out of the reach of children. Keep batteries clean. Do not throw used batteries into regular household garbage since they contain toxic substances that are damaging to the environment. Please bring used batteries back to the supplier or turn them in for recycling.

Trouble-shooting guide

Problem	Cause	Solution
Shutter release button blocked	- Camera is not switched on	- Switch camera on (see p. 7)
	 Battery is empty 	Change battery (see p. 6)
	 Battery contacts are soiled 	 Wipe battery contacts
	 Flash is recharging 	 Wait briefly until flash is ready (see p. 13)
	- Subject is too close	 Increase subject distance to at least 70 cm (27 in) (see p. 12)
	 Film not loaded properly, flashing "1" 	 Open camera back, reload film (see p. 8)
	 Film in camera has been rewound and cartridge is still in camera 	- Remove film cartridge (see p. 29)
	- Program error	- Take out battery and re-insert it
Shutter release blocked and frame counter flashes	- Film advance malfunction	Rewind film via rewind switch p. 29)

Trouble-shooting guide

Problem	Cause	Solution
Entire image out of focus	- Camera shake during exposure	 Hold camera steady and press exposure release gently
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 70 cm (27 in)
	 Main object not inside auto- focus frame while focusing 	- Use focus memory (see p. 14)
	 Difficult autofocus situations, e.g. bright light source in picture 	 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 plane 	- Set distance manually (see p. 16)
	- Incorrect manual focus setting	 Check distance to subject and reset

Trouble-shooting guide

Problem	Cause	Solution
Picture blurred or partially out of focus	- Lens is not clean (water marks, fingerprints)	- Clean lens (refer to "Care tips for the LEICA minilux" page 41)
Picture or part of the picture too dark	 Lens or flash unit obstructed partially too dark 	- Keep hands, carrying strap etc. away from lens and flash unit
	 Camera / subject distance too great for flash exposures 	 Stay within the flash range or use a higher speed film
Overexposed pictures	 Exposure meter sensor was covered 	- See "Holding the camera" (p. 10)
	 Overexposure warning was not heeded 	 Pay attention to flashing green light diode and data panel displays, especially in bright lighting situation

Care tips for the LEICA minilux

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. Be careful not to touch the part of the cloth that will be used to wipe the lens. This is the only way to ensure that sweat or grease traces do not get on to the glass surfaces. Special cleaning cloths that are used to clean eyeglasses are not recommended since they contain chemicals that can damage the optical glass. The glass used for eyeglasses has a different composition than that used for camera lenses. Alcohol and other chemical substances should not be used to clean the camera body. When necessary, clean the camera with a soft dry cloth.

The LEICA minilux should not be exposed to hard knocks, intense heat or moisture. Extremely low temperatures affect the performance of your camera. For this reason it is advisable to keep your LEICA minilux in a warm inside pocket in cold weather.

Avoid abrupt temperature changes from cold to hot, as this may cause condensation and affect the camera's performance. Should condensation form, this will disappear after a while in warm dry conditions. Do not switch the camera on during this time.

The LEICA minilux should not become wet. Expensive repairs or possibly even total loss could be the result. While not in use, store the camera in a cool, dry place, free of dust and chemicals.

Do not exert excessive pressure on the LCD data panel. The LCD data panel has been designed for use in temperatures from approx. 0° to +40° C (32° to 104° F). At lower or higher temperatures, the legibility of the LCD data display may deteriorate. In certain cases, high temperatures may even temporarily cause the LCD data panel to blacken.

Important: The camera contains high-voltage electronic components. Under no circumstance should the camera body be unscrewed or broken open. High voltages can be life threatening!

Customer service

For servicing and in case of damages to your LEICA minilux, the customer service department of Leica Camera GmbH or of your national Leica agency (refer to warranty card) is at your disposal. Please consult your authorized Leica supplier for assistance.

Technical data

(all data at ISO 100/21°)

Type: Compact autofocus 35 mm rangefinder camera with a high speed lens.

Film format: 24 x 36 mm

LEICA SUMMARIT f/2.4/40 mm (6 lens elements in 4 groups)

Focus range: Automatic and manual focus setting from infinity to 70 cm (27 in)

Autofocus system: Active infrared autofocus

Exposure metering system: Automatic program mode with automatic aperture control and flash-on

manual aperture setting (aperture priority)

Exposure metering method: Integral - center weighted

Memory: Focus is locked and metered value stored with continuous light pressure on

the shutter release button

Working range of the For the modes: #AUTO, #AUTO, #ON: from exposure value EV 8.5 exposure meter: (1/60 s and f/2.4) to EV 16.5 (1/400 s and f/16).

For the modes: SLOW*ON, SLOW**ON, *OFF, *OFF B: from exposure value EV 2.5 (1 s and f/2.4) to EV 16.5 (1/400 s and f/16). At exposure values below EV 8.5 the flash is automatically activated when in the automatic

mode.

Shutter speed range: 1 s to 1/400 s, "B" setting for shutter speeds, longer than 1 s in the

SLOW#ON, SLOW##ON, #OFF, #OFF B modes

Exposure override: From +2 EV to -2 EV in half exposure values

Automatic flash and manual flash-on and be flash-off:

Flash automatically activated in low light.

Manual on / off capacity at any time. Pre-flash to reduce "red-eye" effect can activated in automatic modes as well as manually. Long-time exposures can

also be combined with flash.

Flash range (ISO 100/21°): From 0,70 m to 7,20 m (27 in to 24 ft), guide number 11

Flash recharging time: With fresh battery, about 5 seconds

Film speed setting: Automatic film speed setting for DX coded films from 25 to 5000 ASA. For

films without DX-coding, setting to ISO 100/21°.

Viewfinder: Kepler finder with markings for; measured autofocus area, frame lines for

close-range and panorama photography. Flash confirmation signal via a red light diode (LED). Confirmation signal for autofocus and exposure measure-

ment via a green light diode (LED).

Viewfinder magnification: 0.35 x, finder coverage 85% of film format.

Film transport:

Automatic film threading and advance to first frame after loading the film and closing the camera back. Motorized advance after each shutter release. Automatic rewind at the end of the film. The film is wound completely into the cartridge. Mid-roll rewind is possible.

Data panel:

Liquid crystal display (LCD) shows symbols for: battery status, frame count, long-time exposure ("SLOW" and "B"), self-timer, load film and rewind, flashon, exposure override, shutter speed and f/stop.

Self-timer:

10 second countdown; indicated by LED on the front of the camera and countdown in the LCD data panel.

A data panel illumination switches on automatically in low ambient light.

Power supply:

Long-lasting 3 volt lithium battery (CR 123 A).

Switching the camera on/off:

With the main switch on the top of the camera. The lens extends to the "ready" position.

The camera automatically switches off the flash and display after about 5 minutes (stand-by mode).

Exposure program modes: Automatic program mode

Aperture priority

www.orphaffcameras.com

Flash and long-time exposure modes:

Automatic mode with automatic flash-on AUTO #
Automatic mode with automatic flash-on and pre-flash

AUTO # Manual flash-on #ON

Manual flash-on and pre-flash ##ON

Manual flash-on and long-time exposure (SLOW∳ON)

Manual flash-on and pre-flash with long-time exposure (SLOW##ON)

Manual flash-off (#OFF)

Manual flash-off (*OFF) with long-time exposure B

The selected flash modes stay in effect until another mode is chosen or

until the camera is switched off.

Camera body:

Outer body is of solid, extremely durable titanium in the elegant LEICA design. Grip surfaces are covered with leather. Precision film works are of metal. Removable back cover with film cartridge window. Side attachment for carrying strap. Tripod mount: 1/4" (A 1/4 DIN 4503).

Data back (accessory):

Imprints the day and time or data on the film. Quartz controlled clock and automatic calendar up to the year 2019. Imprint intensity controlled by automatic DX-coding feature of the camera.

Dimensions:

With and without data back:

Length 124 mm / Height 29 mm / Depth 43 mm (4.8 / 1.1 / 1.5 in)

Weight:

Approximately 330 g (without battery)

Accessories:	order-no.
Data back for LEICA minilux in light finish (titanium)	18 525
black finish	18 526
Carrying strap approx. 50 cm (20 in) long	18 518
Wrist strap (included in delivery - as replacement)	18 519
Soft leather case with belt strap and additional inner pocket	
for panorama adapter and brief instructions	18 507
Leather ever-ready case with removable front part and carrying strap	
with non-slip pad	18 506
Mini tripod that fits in any pocket	14 320
Panorama adapter for the LEICA minilux	18 511
Viewfinder correction lens +1 diopter	18 530
Viewfinder correction lens -1 diopter	18 531
Electric cable release for LEICA minilux (30 cm (12 in) long)	18 540

Leica Projectors

For the projection of your slides we have a wide projector selection for you to choose from. The PRADOVIT P 2002 as well as the PRADOVIT P 300, P 300 IR, P 600, P 600 IR and LEICA P 150 models each equip you comfortably and have many combination possibilities.

Leica Binoculars and Spotting Scopes

The special advantage of TRINOVID binoculars and TELEVID spotting scopes are the excellent optics. They are produced with the same high quality glass as the world renown Leica lenses. The high optical performance, resolution and the stunning brilliance produce a graphic image.

Work Diagram of the Leica minilux Automatic Program Mode

The exposure meter data is found on the right side of the diagram. The information concerning the working range of the automatic program mode is on the left. The exposure values (EV) are arranged in between.

The brightness values (Bv) are displayed in candela per square meter (cd/m²) on the right side in the diagram. Above this, the film speed value (Sv) is shown in ISO values.

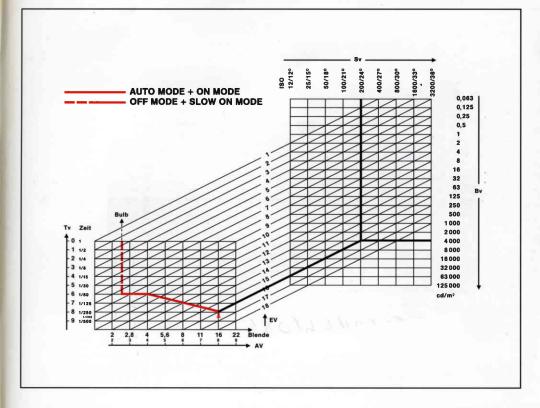
The exposure-time values (Tv) are displayed in seconds on the left of the diagram. The aperture values (Av) can be read from the bottom left. The function of the automatic program mode is represented by the red curve.

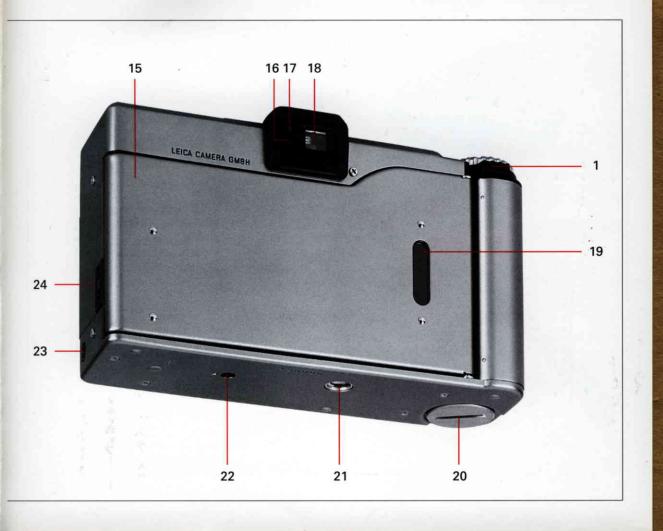
In the long-time mode (brightness values below $8.5 \, \text{cd/m}^2$), in increasing light, only the exposure times get shorter while the lens shutter stays fully open – same as with "B". In the normal mode (auto), in the same lighting conditions, the camera automatically switches to flash-on; the exposure time remains a constant $1/60 \, \text{sec.}$

For brightness values below 8.5 cd/m² and when the flash is off, the shutter switches over to long-time exposure (broken line). In the "B" setting (dotted line), the shutter stays open as long as the shutter release is held down.

From Ev 8.5 and up, with further increasing brightness and an exposure time of 1/60 sec., only the lens is stopped down: to f/stop 4. After that, aperture and exposure time change simultaneously. As shown by the curve, the aperture setting is affected more than the exposure time. Beyond f/stop 16, only the exposure time is shortened.

The combination of exposure time and aperture – which is formed in relation to the given film speed and brightness – can be determined in the diagram by following the exposure value line to where it intersects with the automatic program mode curve. In this example, a film with ISO 200/24° was used with 4000 cd/m² (bright sunshine) resulting in an exposure time of 1/250 seconds and f/stop 15.







Soft leather case (Accessories)



Ever-ready case (Accessories)



LEICA SUMMARIT f/2,4/40 mm

www.orphancameras.com