

### **The bright-line frame view- and rangefinder**

The LEICA M8's bright-line frame view- and rangefinder is not only a very high-quality, large, brilliant and bright viewfinder, it is also a highly accurate rangefinder coupled to the lens. It has an enlargement factor of 0.68 x.

If lenses with nominal focal lengths\* of 24, 28 (Elmarit 28 mm from serial number 2 411 001), 35, 50, 75 and 90 mm are used, the associated bright-line frames are automatically mirrored-in in the combinations 24+35 mm, 28+90 mm, 50+75 mm.

The size of the bright-line frame is matched to the taking format of the LEICA M8 and corresponds to a sensor size of around 18x27mm at the shortest setting distance for each focal length. At longer distances, the camera records more of the subject than can be seen within the bright-line frames.

The bright-line frames are linked to the distance setting in such a way that parallax – the misalignment between the lens and the viewfinder axes – is automatically compensated and the image within bright-line frame and the resulting picture are identical over the entire distance setting range 0.7 m to ∞.

The rectangular distance metering field, which is brighter than the surrounding image field, is in the middle of the viewfinder image. All Leica M lenses from 16 to 135mm focal length connect with the range finder when used on the LEICA M8.

When the exposure meter is turned on, the exposure meter LEDs and the flash symbol LED appear at the lower edge of the viewfinder image.

For more details about setting the distance and exposure metering, together with flash mode, refer to the relevant sections on pages 104/105/110.

#### **Note:**

When using longer focal lengths than those for which there are bright-line frames (90 mm, see above), such as the 135 mm models, their image field in the camera viewfinder – which is very small to start with – can only be “determined” very imprecisely.

### **The frame selector**

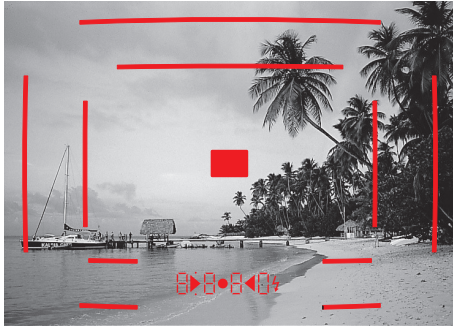
The frame selector (1.8) expands the possibilities of the LEICA M8 viewfinder. This built in universal viewfinder allows you to call up those bright-line frames at any time, which do not belong to the lens currently being used. You can then see immediately if, for image composition reasons, it would be better to photograph the relevant subject using a different focal length.

If the lever is swung outwards, that is away from the lens, the frames for 24 and 35 mm focal length are shown\*.

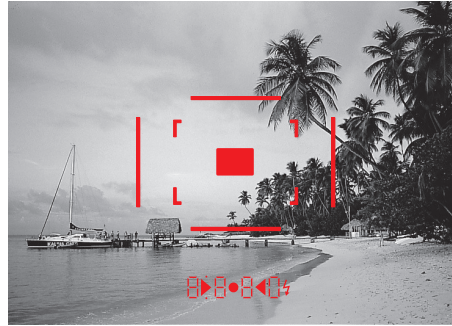
If the lever is moved to its vertical central position, the frames for the focal lengths 50 and 75 mm are shown.

If the lever is swung inwards, that is towards the lens, the frames for 28 and 90 mm focal length are shown\*.

\* see “The extension factor”, p. 87



24 mm + 35 mm



50 mm + 75 mm



28 mm + 90 mm

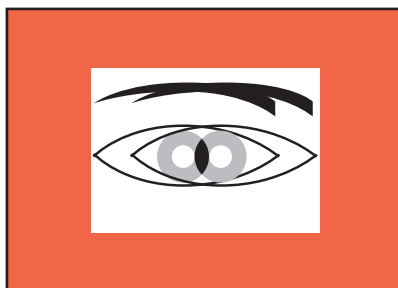


### Distance metering/focusing

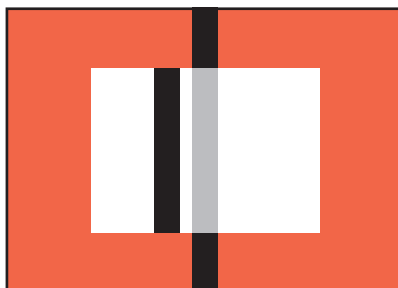
Due to its large effective metering basis, the range-finder on the LEICA M8 is very precise. The benefits of this are particularly noticeable when using wide-angle lenses with their relative steep depth of field.

Mechanical base width (Distance between optical axes of the view- and rangefinder windows)	x viewfinder magnification	= Effective base width
69.25 mm	x 0.68	= approx. 47.1 mm

The rangefinder metering field is visible as a bright, sharply defined rectangle in the center of the viewfinder. If you keep the large viewfinder window (1.6) closed, only the activated bright-line frames and this metering field remain visible. The focus can be set using either the superimposed image or split image method:



Double image = out of focus



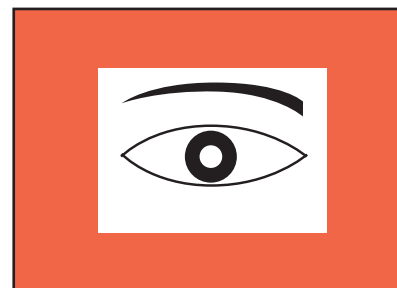
Interrupted line = out of focus

#### Superimposed image method (double image)

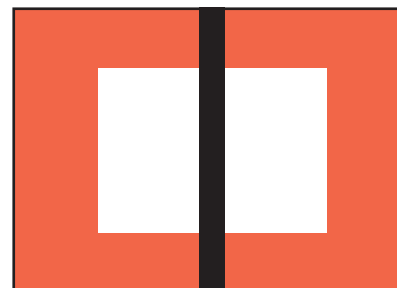
In a portrait, for example, aim the rangefinder metering field at the eye and turn the distance setting ring on the lens until the contours in the metering field are brought into line. Then choose your subject trimming.

#### Split image method

When taking photographs of architecture, for example, aim the rangefinder metering field at a vertical



Coincident image = in focus



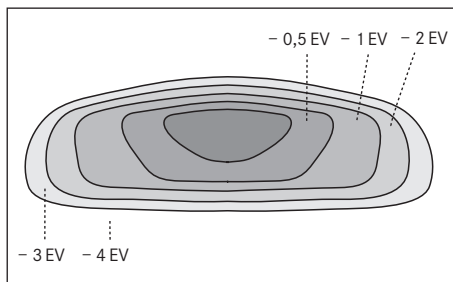
Continuous line = in focus

edge or another clearly defined vertical line and turn the distance setting ring on the lens until the contours of the edge or line can be seen at the limits of the metering field with no misalignment. Then choose your subject trimming.

In practice, there is often no clear distinction between the two methods. Both can be used very effectively in combination.

### Exposure metering

On the LEICA M8, exposure metering for the available ambient light is done through the lens with the working aperture and with a strongly concentrated center-weighted characteristic. The light reflected by a bright blade in the first shutter curtain is captured by a photo diode and measured. This silicon photo diode with forward-facing convex lens is positioned at the center lower edge, on the camera bottom.



The appropriate shutter speed/aperture combinations for a correct exposure are displayed by or determined using the viewfinder displays. When using aperture priority mode the aperture is set manually, and the appropriate shutter speed is then set automatically by the camera. In this mode a digital LED display indicates the resulting shutter speed (e.g. 1000). For manual setting of both values, a light balance consisting of three red LEDs (▶◂◃) is used to adjust the exposure. When the setting is correct, only the central circular LED is lit up.

### Turning the exposure meter on/off

The exposure meter is activated by pressing down the shutter release button (1.20) to its first pressure point, provided that the camera is switched on with the main switch (1.19) and the shutter speed dial (1.18) is not set to **B**.

The exposure meter is ready to use when by one of the displays in the viewfinder lights up continuously:

- For aperture priority mode, the digital LED display of the shutter speed,
- For manual mode, either of the two triangular LEDs, either individually or in conjunction with the center circular LED.

If the shutter release button is let go, without activating the shutter, the exposure meter remains turned on for around 12 s more, and the respective LED(s) remain lit for the same time.

If the shutter speed dial is set to **B**, the exposure meter is disabled.

### Notes:

- If the displays go out, the camera is in “standby” mode.
- With very little ambient light, i.e. at the limits of the exposure meter’s range, it can take around 0.2 s for the LEDs to light up.
- If in aperture priority mode, correct exposure cannot be achieved using the available shutter speeds, the shutter speed display gives a warning by flashing (for more details, refer to the section under “Aperture priority” on p. 106).
- If, under very low lighting conditions, and in manual mode the exposure meter reading is out of range, the left hand triangular LED gives a warning by flashing. In aperture priority mode the shutter speed remains displayed. If the required exposure exceeds the longest possible shutter speed of 32 s, this display also flashes.
- If the camera is out of use for an extended period or is stored in a case, always switch it off with the main switch. This prevents any power consumption, including that which continues to occur in standby mode after the exposure meter is turned off automatically and the display is extinguished. This also prevents taking pictures accidentally.

### Exposure modes

The LEICA M8 offers the photographer two exposure modes: Aperture priority and manual setting. Depending on the subject, the situation and individual preference, these modes allow a choice between a quicker and easier procedure, and the familiar direct selection of shutter speed and aperture.

### Aperture priority

If the shutter speed dial (1.18) is in the **A** position the electronics in the camera control the shutter speed automatically and steplessly in the range  $\frac{1}{8000}$ s to 32s, in accordance with the sensitivity setting, the metered brightness and the manually selected aperture.

The generated shutter speed is displayed digitally in the camera viewfinder; for better clarity it is displayed in half steps.

For shutter speeds longer than 2s the remaining time is counted down and displayed in seconds after the shutter is released. The actually generated and steplessly controlled shutter speed can however vary from the half step value displayed: If for instance before releasing the shutter **16** (as the nearest available value) is shown in the display, but the generated shutter speed is in fact longer, as is shown by the countdown after the shutter release starting at **19**.

Under extreme lighting conditions the exposure meter may even, based on all the parameters, generate a shutter speed that is outside its working range, i.e. brightnesses that demand an exposure shorter than  $\frac{1}{8000}$ s or longer than 32s. In such cases the specified minimum or maximum shutter speed is nevertheless used, and these values flash in the viewfinder, as a warning.

### Metering memory lock

Important sections of the subject are often to be positioned off center for compositional reasons and they may also occasionally be brighter or darker than average. However, as described in the section “Exposure metering” on p. 105; the LEICA M8 metering is strongly center-weighted, i.e. concentrated mainly on an area in the center of the picture and it is calibrated to an average grey scale value.

Such subjects and situations can be dealt with easily, even when using aperture priority, by using Metering memory lock.

To do this:

1. aim the center of the viewfinder image at the important section of the subject in the first case, or at another detail with average brightness in the second,
2. and measure and store it by pressing the shutter release button (1.20) to its 2nd pressure point. For as long as the shutter release button is held down to the pressure point, a red point appears at the top of the line of figures in the viewfinder as confirmation, and the shutter speed information does not change even if the brightness conditions change.
3. Continuing to hold down the shutter release button, move the camera to the final image trimming
4. and then take the picture with the exposure originally calculated.

Changing the aperture setting after completing Metering memory lock does not result in adjustment of the shutter speed, i.e. incorrect exposure would occur. Memory-lock is cancelled when the finger is removed from the shutter release button.

### Exposure compensation

Exposure meters are calibrated to an average grey scale value (18% reflection), which corresponds to the brightness of a normal, i.e. average photographic subject. If the actual subject detail does not match this requirement, an appropriate exposure compensation can be performed.

Particularly when taking several pictures in succession, e.g. if you want a series of pictures to deliberately have a slightly lower or higher exposure for a particular reason, exposure compensation is a very useful function. Unlike Metering memory lock, once set it remains effective until you (deliberately) reset it (for more details of Metering memory lock, refer to the corresponding section on p. 106).

The LEICA M8 allows exposure compensation in a range of up to  $\pm 3$ EV in  $\frac{1}{3}$ EV steps (EV: Exposure Value).

### Setting the function

1. In the picture parameters menu (see p. 80/93) select **Exp. comp.** (5.2.2), and
2. in the associated sub-menu select the compensation value.

### Note:

An exposure compensation value set on the camera influences only the metering of the ambient light! If when using the flash you also wish to make a TTL flash exposure metering compensation – whether in the same or the contrary sense – you must do this separately (on the flash unit itself)! See also the sections on flash mode, from p. 110.

### Example of a positive compensation

With very bright subjects, such as snow or a beach, the exposure meter selects a relatively short shutter speed due to the high level of brightness. As a result, the snow shows up in an average gray and any people in the photograph are too dark: Underexposure! To remedy this problem, the shutter speed needs to be lengthened or the aperture stopped up, i.e. a compensation setting of e.g. +1.5 EV needs to be made.

### Example of a negative compensation

For extremely dark subjects that reflect very little light, the exposure meter selects a shutter speed that is far too long. A black car will appear gray: Overexposure! The shutter speed needs to be shortened or the aperture stopped down, i.e. a compensation setting of e.g. -1 EV is required.

### Manual exposure setting

If the exposure setting is performed entirely manually, the shutter speed dial (1.18) must be clicked to one of the marked shutter speeds or to one of the intermediate values.

Then:

1. switch the exposure meter on and
2. turn the shutter speed dial and/or the aperture setting ring on the lens – in each case in the direction indicated by the triangular LED that is lit up – until only the circular LED is lit up.

As well as the direction of rotation of the shutter speed dial and aperture setting ring necessary for correct exposure, the three LEDs in the light balance also indicate underexposure, overexposure and correct exposure in the following way:

- ▶ underexposure by at least one aperture stop; turning to the right is required
- ▶• underexposure by  $\frac{1}{2}$  an aperture stop; turning to the right is required
- Correct exposure
- ◀ overexposure by  $\frac{1}{2}$  an aperture stop; turning to the left is required
- ◀ overexposure by at least one aperture stop; turning to the left is required

### Note:

For exposure times longer than 2s the remaining shutter speed is counted down and displayed in seconds after the shutter is released.

### The B setting

The **B** setting keeps the shutter open as long as the shutter release button remains pressed. This allows exposures of any length.

During the course of this, the exposure meter is disabled; after the shutter is released however, the digital display in the viewfinder however gives the cumulative exposure time in seconds, for guidance.

### Notes:

- Long exposure times can lead to very heavy picture noise.
- To reduce this annoying effect, the LEICA M8 automatically takes a second “black picture” (against the closed shutter) after any picture with longer shutter speeds (from approx.  $\frac{1}{30}$  s, but this can vary as a result of other menu settings. The noise present in this parallel picture is then digitally “subtracted” from the data set for the real picture. This doubling of the “exposure” time can be significant in particular at longer exposures and must be considered. During this time the camera should not be switched off.  
For shutter speeds of 2 s or more the message **Noise reduction in progress 12s\*** appears in the monitor.

### Exposure meter metering range

At room temperature, normal humidity and ISO 160/23°, the metering range corresponds to EV0 to 20 or f/1.0 and 1.2 s to f/32 and  $\frac{1}{1000}$  s.

### Working below the metering range

If under very low lighting conditions and manual mode the exposure meter reading is out of range, the left hand triangular LED gives a warning by flashing. In aperture priority mode the shutter speed remains displayed. If the required shutter speed exceeds the longest possible shutter speed of 32 s, this display also flashes.

Since exposure metering takes place with the working aperture, this situation can also be created by stopping down the lens.

Even if you are below the metering range, the exposure meter remains on for around 12 s after you let the shutter release button go. If the lighting conditions improve in this time (e.g. through a change in the subject detail or opening of the aperture), the LED display changes from flashing into being continuously lit, indicating that the meter is ready.

### Metering diagram

The metering diagram applies to both exposure modes, aperture priority and manual setting. Information on the metering range of the exposure meter can be found on the right-hand side of the diagram, while information on the working range of the focal plane shutter and the lenses are on the left. Between them, the exposure values (EV) can be read off.

The metering range of the exposure meter is given on the right of the diagram in  $\text{cd}/\text{m}^2$  (candela per square meter).

Above this, the sensitivity settings (SV = Speed Value) are given in ISO values.

The left-hand side of the diagram shows the shutter speeds in seconds (TV = time value). The working range of the LEICA M8 focal plane shutter is represented by a shaded area in the adjacent column.

When set to **B** the range has no upper limit.

The aperture values (AV) can be read off in the bottom left.

\* Time quoted is an example only

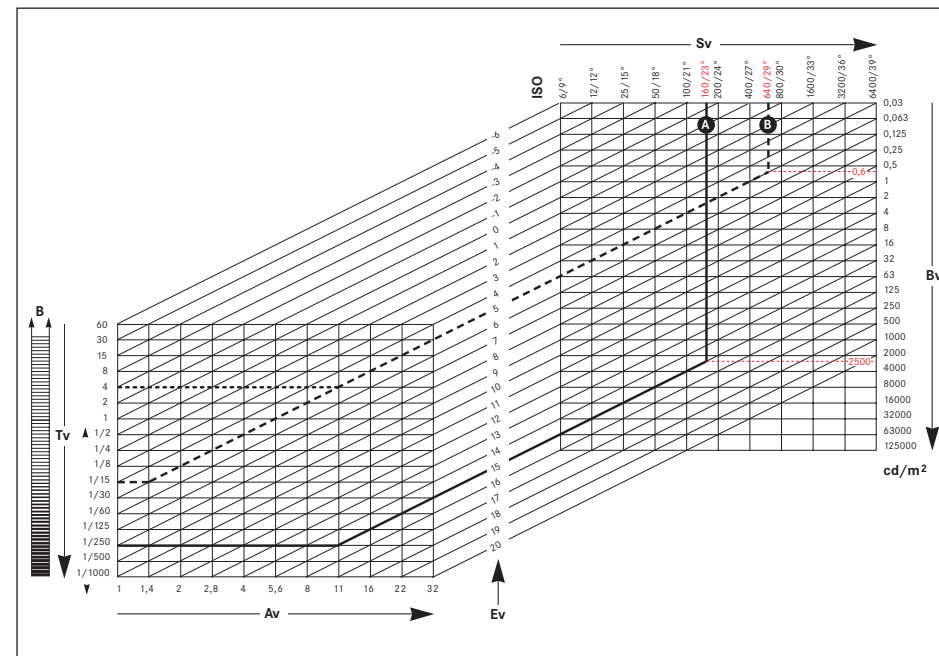
Example A highlights the relationships between the film speed, light intensity (brightness), shutter speed and aperture.

From the sensitivity value (ISO 160/23°), first of all trace the vertical line to its intersection with the horizontal line for the given light intensity. In this example, this is 2500 cd/m<sup>2</sup>, which corresponds to the brightness in sunshine. The line then runs diagonally as far as the vertical line for the set aperture and from there horizontally to the left until it reaches the necessary shutter speed (1/250 s). The exposure value (EV 15) can also be read off in the diagonal course of the line.

Example B shows that in candlelight and with a sensitivity of ISO 640/29° (0.6 cd/m<sup>2</sup>) photographs must be taken with aperture 1.4 and a shutter speed of 1/15 s. Aperture 16 on the lens, for example, cannot be used as the associated shutter speed of 8 s is not available on the shutter speed dial. Because the slowest shutter speed that can be set on the dial is only 4 s, direct metering is no longer possible. Conversion of reading the correct shutter speed from this diagram is therefore essential.

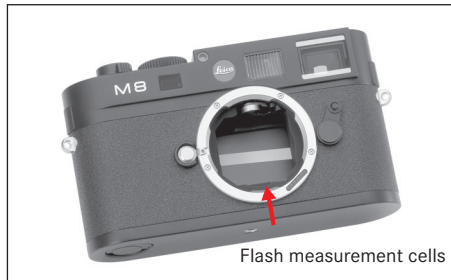
In aperture priority mode on the other hand, the LEICA M8 automatically controls shutter speeds up to 32 s, so that in the above example every stop of the lens can be used.

Metering diagram





### General information on flash exposure metering and control



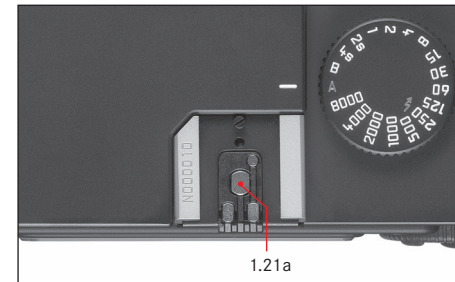
The LEICA M8 determines the necessary flash power by firing one or more pre-flashes, fractions of a second before taking the actual picture. Immediately after this, at the start of exposure, the main flash is fired.

All factors that influence the exposure (such as filters and changes to the aperture setting) are automatically taken into account.

### Compatible flash units


The following flash units, when used on the LEICA M8, are capable of all the functions described in this manual:

- The LEICA SF 24D system flash unit (order no. 14 444). With its compact size and design that matches the camera, is particularly suitable. Thanks to its permanently attached flash foot with additional control and signal contacts, which in automatic mode transfer a range of data and settings, it is very easy to use.
- Flash units which satisfy the technical requirements for System Camera Adaption (SCA) System 3000, are fitted with the SCA-3502/3501<sup>1</sup> adaptor, and which allow guide number control.



Other commercially-available flash units with standard flash foot<sup>2, 3</sup> and positive center contact, and which are fired by the center contact (X-contact, 1.21a), can also be used. We recommend the use of modern thyristor-controlled electronic flash units.

<sup>1</sup> When using adaptor SCA-3502 (from version 4) the white balance (see p. 98) can be set to automatic (A) for correct color reproduction.

<sup>2</sup> If flash units not specially dedicated to the LEICA M8 are used, the camera white balance will not be automatically adjusted, and the setting  should be used (see p. 98).

<sup>3</sup> The aperture specified on the lens must be manually set on the flash unit.

### Attaching the flash unit



When attaching a flash unit to the LEICA M8 flash shoe (1.21), you should ensure that the foot of the flash unit is fully inserted and the clamping nut (if fitted) is tightened to prevent it accidentally falling out. This is particularly important for flash units with additional control and signal contacts, because if the flash shoe moves from its position in the flash shoe the necessary contacts can be broken, leading to malfunctions.

**Note:**

Before attaching the flash, both camera and flash unit must be turned off.

### Flash mode

Fully automatic camera-controlled flash operation is available for the LEICA M8 when using system-compatible flash units as described in the previous section, and with both exposure modes – aperture priority mode **A** and manual setting.

In addition, an automatic fill-flash control is performed with both exposure modes. This means that in order to ensure a balanced relationship between flash and other lighting at all times, the flash power is reduced by up to  $1\frac{2}{3}$  EV as ambient brightness increases. If however, the ambient brightness plus even the shortest possible flash sync speed of  $\frac{1}{250}$  s would cause overexposure, the flash will not be fired in aperture priority mode. In such cases the shutter speed is governed by the ambient brightness and is shown in the viewfinder.

In addition the LEICA M8 permits the use of other, more artistically interesting flash techniques such as synchronization of the flash firing with the second instead of with the first shutter curtain and of flashes with longer shutter speeds than the standard sync speed of  $\frac{1}{250}$  s. These functions are set using the camera main menu (for more details, refer to the relevant following sections).

In addition the LEICA M8 loads the film speed setting to the flash unit.

This allows the flash unit, provided it has received such information and the aperture manually set on the lens is also input to the flash unit, automatically to adjust its range values accordingly. The sensitivity setting cannot be changed at the flash unit.

**Notes:**

- The settings and functions described in the following sections relate exclusively to flash units that are system compatible to the LEICA M8.
- An exposure compensation value set on the camera (see p. 107) influences only the metering of the ambient light! If when using the flash you also wish to make a TTL flash exposure metering compensation – whether in the same or the contrary sense – you must do this separately (on the flash unit itself)!
- More details of flash use, in particular for other flash units not specially matched to the LEICA M8 and for different flash unit operating modes can be found in the respective instructions.

### The settings for camera-controlled automatic flash mode

After the flash unit in use has been switched on and set to the operating mode for GNC (= Guide Number Control), the following actions on the LEICA M8 are necessary:

1. Before taking each flash picture first perform the exposure metering by gently pressing the shutter release button, so that the display in the viewfinder shows the shutter speed or switches over to the light balance. If this stage is missed out by fully depressing the shutter release button in one quick movement, the flash unit will not fire even if required.
2. The shutter speed dial must be set to A, or to flash sync speed  $\frac{1}{250}$  s, or – for special effects to a long shutter speed – including B. In aperture priority mode the camera automatically switches to the flash sync speed, or to the speed range set in the menu (see “Selecting the sync time/the sync time range”, p. 113).
3. The desired aperture, or the aperture required for the respective distance to the subject, must be set.


#### Note:

If the automatically controlled (see “Flash mode”, p. 111) or manually set shutter speed is shorter than  $\frac{1}{250}$  s, the flash will not be triggered.




### The flash exposure control displays in the viewfinder with dedicated flash units

A flash-shaped LED (2.1.3) appears in the LEICA M8 viewfinder as confirmation and display of the various operating states. This LED appears together with the displays for exposure metering for the ambient light level, described in the respective sections.


#### In automatic flash mode (flash unit set to Guide Number Control)

- If despite the flash unit being switched on and ready for use,  does not appear:


Manually set the camera to a shutter speed shorter than  $\frac{1}{250}$  s. In such cases the LEICA M8 will not fire the flash unit even though it is switched on and ready for use.

-  flashes slowly (at 2Hz) before the picture is taken:  
The flash unit is not yet ready for use
-  is lit up before the picture is taken:  
The flash unit is ready for use
-  remains continuously lit after taking the picture, and the other displays go out:




The flash exposure was successful, the flash unit remains ready for use.

-  flashes rapidly after taking the picture (at 4 Hz), and the other displays go out:

The flash exposure was successful, but the flash unit is not yet ready for further use.

-  goes out after taking the picture, together with the other displays:  
Underexposure, perhaps due to the choice of too small an aperture stop for the subject. If the flash unit is set to a partial discharge power, because of the lower power requirement it may be ready for use despite the flash LED not lighting up.

#### When the flash unit is set to camera control (A) or manual mode (M)

-  does not appear despite the flash unit being switched on and ready for use:  
Manually set the camera to a shutter speed shorter than  $\frac{1}{250}$  s. In such cases the LEICA M8 will not fire the flash unit even though it is switched on and ready for use.
-  flashes slowly (at 2Hz) before the picture is taken:  
The flash unit is not yet ready for use.
-  is lit up before the picture is taken:  
The flash unit is ready for use.

### Selecting the sync speed/the sync speed range

While the shutter speed used has no influence on the control of the flash exposure (because the flash duration is very much less than this), the reproduction of the available light is very strongly influenced by shutter speed and aperture setting. A fixed setting of the shortest possible shutter speed for flash operation, the sync speed, in many situations unnecessarily leads to a greater or lesser underexposure of all parts of the subject not directly lit by the flash.

The LEICA M8 allows you to combine flash operation with the shutter speed generated in aperture priority mode to subtly change the lighting conditions for the respective subject to suit your ideas on picture composition. You can choose between five options for this:

#### 1. Lens Dependant

Automatic control of shutter speed depending on the focal length of the lens used (based on the rule of thumb for shake-free pictures with a hand-held camera =  $1/\text{focal length}$ , e.g.  $1/60\text{s}$  using the Summicron-M 50mm f/2 ) up to sync speed  $1/250\text{s}$ .\*

#### 2. Off ( $1/250$ )

Fixed setting to the shortest possible shutter speed of  $1/250\text{s}$ , e.g. for the sharpest possible recording of moving subjects and fill-flash.

#### 3. down to $1/30$ , 4. down to $1/8$ , and 5. down to 32 sec

Automatic control of all shutter speeds from the specified value down to the sync speed of  $1/250\text{s}$ .

#### Note:

Manual exposure control also allows any shutter speed can be set down to the sync time of  $1/250\text{s}$ .

#### Setting the function

1. In the main menu (see p. 80/93) select **Auto Slow Sync** (5.1.13) and
2. in the respective sub-menu, select the desired variant.

### Selecting the firing moment

Flash photographs are illuminated by two light sources, the available light and the light from the flash. The parts of the subject exclusively or primarily illuminated by the flash are almost always reproduced extremely sharply (with correct focusing) due to the extremely fast pulse of light. By contrast, all other parts of the subject – those that are sufficiently illuminated by the available light or illuminate themselves – are portrayed with different degrees of sharpness in the same picture.

Whether these parts of the subject are reproduced sharply or “blurred”, and the degree of “blurring”, is determined by two independent factors:

1. The length of the shutter speed, i.e. for how long these parts of the subject “act upon” the sensor
2. How quickly these parts of the subject – or the camera itself – are moving during exposure.

The longer the shutter speed or the faster this movement, the greater the extent to which the two – superimposed – parts of the picture can differ.

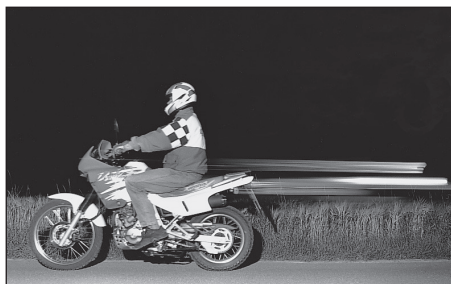
\* Only when using Leica M lenses with 6-bit coding in the bayonet and lens identification enabled in the menu (see p. 80/86)





With the flash fired at the normal moment, at the beginning of the exposure, i.e. immediately after the 1<sup>st</sup> shutter curtain has opened the frame completely, this can even lead to apparent contradictions, such as in the picture of the motorcycle (left), which is being overtaken by its own light tracers.

The LEICA M8 gives you a choice between this normal flash firing moment and synchronization with the end of the exposure, i.e. immediately before the 2<sup>nd</sup> shutter curtain begins to close the frame again. In this case, the sharp image is located at the end of the movement. In the photograph (right), this flash technique gives a natural impression of movement and dynamics.



This function is available at all camera and flash unit settings, and in aperture priority mode as well as in manual shutter speed selection, in the various automatic flash modes as well as in manual flash mode; this displays are the same in all cases.

#### Setting the function

1. In the main menu (see p. 80/93) select **Flash Sync** (5.1.12) and
2. in the respective sub-menu, select the desired variant: **1<sup>st</sup> Curtain** or **2<sup>nd</sup> Curtain**.

#### Additional functions

##### User/application specific profiles

On the LEICA M8, any combination of all main and picture parameters menu settings can be permanently stored, e.g. so that they can be retrieved quickly and easily for recurring situations / subjects. A total of three memory slots are available for these combinations - 1 / 2 / 3

##### Applying settings/Creating a profile

1. Set the desired functions in the main and picture parameters menus.
2. In the main menu (see p. 80/93) select **Save User Profile** (5.1.2), and
3. in the associated sub-menu select the desired memory slot.

##### Selecting a saved profile

1. In the picture parameters menu (see p. 80/93) select **User Profile** (5.2.6), and
2. in the associated sub-menu select the desired profile.

**Notes:**

In addition to the three memory slots, there is another setting – **0**, with which you can recall the factory default settings at any time. **User Profile 0** is therefore similar to the **Reset** function (see next section), except that not every setting is reset, particularly not those set in the three other profiles.

If you change one of the settings within a profile, the respective number disappears.

**Resetting all custom settings**

This function allows you in one operation to delete all previous user settings in the main and picture parameters menus and reset them to the factory default settings.

**Setting the function**

1. In the main menu (see p. 80/93) select **Reset** (5.1.15), and
2. use the **SET** button (1.22) to call up the associated sub-menu.
3. Then use the left/right direction button (1.31) to select the desired function, and
4. confirm your selection by pressing the **SET** button once again.

**Note:**

Such resetting also deletes any individual profiles that may have been specified and saved using **Save User Profile** (5.1.2, see p. 114).

**Review mode**

As described in the sections “Selecting picture and review modes” (p. 88) and “Automatic review of last picture” (p. 89), you can view the pictures you have taken in the monitor (1.33) on the LEICA M8. This can either be automatic for a short time immediately after taking the picture in **Auto Review** mode or at any time, and for an unlimited time, in **PLAY** mode. In both cases, several additional options are available while viewing the pictures.

**Notes:**

- If no pictures are stored on the card, on pressing the **PLAY** button the following message appears on the monitor: **No valid image to play**
- Depending on the function previously set, pressing the **PLAY** button generates different responses:

	Initial situation	After pressing the PLAY button
a.	Full review display of a picture	Picture mode, monitor off
b.	Review of an enlarged section/several reduced pictures (see below)	Full review display of the picture
c.	<b>INFO</b> display with any enlargement (see p. 93)	<b>INFO</b> display with full review display
d.	One of the menu controls (see p. 93), or <b>DELETE</b> or <b>PROTECT</b> function (see p. 117/118) is activated	Full review display of the last displayed picture

- The LEICA M8 stores pictures in line with the DCF standards (Design Rule for Camera File System).
- The LEICA M8 can review only pictures taken with cameras of this type.

**Additional options when viewing****A. Viewing other pictures/“Scrolling” in the memory**

You can open other saved pictures using the left and right direction buttons (1.31). Pressing the left button takes you to the pictures with lower numbers, pressing the right button takes you to those with higher numbers. Holding the button down (approx. 2 s) results in fast scrolling. After the highest and lowest numbers, the series of pictures begins again in an endless loop, which means you can reach all pictures in either direction.

- The picture and file numbers in the monitor change accordingly.



### B. Enlarging/selecting the section/simultaneous viewing of several reduced pictures

With the LEICA M8 it is possible to open an enlarged section of an individual picture in the monitor to study it more closely, with a free choice of section. Conversely, you can also view up to 9 pictures simultaneously in the monitor, e.g. to gain an overview or to find the picture you are looking for more quickly.

#### Notes:

- The more the picture is enlarged, the more the reproduction quality in the monitor deteriorates – due to the proportionately lower resolution.
- While an enlarged picture is displayed, the direction buttons are no longer available to open other pictures, instead they are used to “navigate” within the picture. (Exception: see next note).

Turning the central setting ring (1.30) to the right (clockwise) enlarges the central section. The more you turn the ring, the greater the enlargement and the smaller the section area. Enlargement is possible up to 1:1, i.e. until 1 pixel of the monitor displays 1 pixel of the picture.

- The rectangle within the frame (4.1.3/4.2.6k) in the lower right-hand corner of the monitor symbolizes the current enlargement.



The four direction buttons (1.31) can be used to select any position for the section to be enlarged. To do this, press the button (several times) for the direction in which you want to shift the section.

- In addition to the enlargement, the rectangle within the frame (4.1.3/4.2.6k) in the lower right-hand corner of the monitor symbolizes the position of the section displayed.



#### Note:

You can also switch from an enlarged picture directly to another picture, which will then be shown at the same enlargement. To do this press the left or right direction button again – keeping the **PLAY** button pressed (1.27)

By turning the setting ring to the left (anticlockwise, starting from normal size), you can simultaneously view 4 – or by turning the ring further, 9 – pictures in the monitor.

- Up to 9 reduced images are shown in the monitor (1.33) including the picture previously being viewed at normal size, which is marked with a red border. You can use the four direction buttons to navigate freely among the reduced images, and the relevant image is marked accordingly. You can then view this image at normal size by turning the setting ring to the right.

#### Note:

When showing 9 pictures, turning the setting dial further to the right places the red frame around the entire group of pictures, which then allows you to “scroll” more quickly, a block at a time.

### C. Deleting pictures

While a picture is displayed in the monitor, you have an opportunity to delete it if you wish to do so. This can be useful, for example if the pictures have already

been saved to other media, if you no longer require them or if you need to free up more space on the memory card.

The LEICA M8 also offers you the option of deleting single pictures, or all pictures at the same time, as required.

#### Notes:

- Deletion can be performed only in review mode, albeit irrespective of whether a picture is shown in normal size or several reduced pictures are shown (not however if the 9-image review is shown with a red frame round the entire block, see p. 116).

For protected pictures, the protection must first be cancelled before they can be deleted (see also next section).

#### Important:

Deletion of a pictures is permanent. Pictures cannot subsequently be recovered.

#### Procedure

Press the **DELETE** button (1.25).

- The corresponding sub-menu appears in the monitor display (1.33).



#### Notes:

- The delete process can be cancelled at any time by pressing the **DELETE** button again.
- The following controls and their functions are not available during the entire delete process: the **MENU** (1.29), **PROTECT** (1.24) and **INFO** (1.23) buttons.

The first step is to decide

- whether you want to protect individual pictures  Delete  Single ,
- or
- all pictures simultaneously  Delete  All .

Subsequent operations are controlled by the menu, i.e. in principle in exactly the same way as described in the "Menu control" section (on p. 93). After specifying the relevant menu display, this is done using the shutter speed dial (1.18), direction buttons (1.31) and the **SET** button (1.22).

#### Note:

If the picture shown is protected (see p. 119), the function option **Single** cannot be selected in the sub-menu.

When deleting all pictures, to prevent accidental deletion there is an intermediate step in which you must reconfirm that you definitely want to delete all pictures on the memory card.



### Displays after deleting

#### Deleting individual pictures

After deleting, the preceding picture appears.

If there are no more pictures saved on the card, the following message appears: **No valid image to play**.

#### Deleting all pictures on the memory card

After deleting, the following message appears:

**No valid image to play**.

However, if one or more pictures were protected, that picture or the first of those pictures then appears.

#### Note:

When a picture is deleted, the subsequent pictures in the picture counter (4.1.2/4.2.5) are re-numbered as follows: For example, if you delete picture no. 3, what was previously picture no. 4 then becomes no. 3, the previous no. 5 becomes no. 4 etc. However, this does not apply to the file numbering on the memory card (in the **INFO** display, see p. 79) for the remaining image files in the folder (4.2.6)), which remains unchanged.

### D. Protecting pictures/Clearing delete protection

The pictures stored on the memory card can be protected against accidental deletion. This protection can then be cleared at any time.

#### Notes:

- Applying or removing picture protection can be performed only in review mode, irrespective of whether a picture is shown in normal size or as one of several reduced pictures (not however if the 9-image review is shown with a red frame around the entire block, see p. 116).
- For details of the different procedures/responses when you attempt to delete protected pictures, refer to the previous section.
- If you decide you want to delete them, clear the protection as described below.
- Protection is only effective for the LEICA M8.
- Even protected pictures are deleted if the memory card is reformatted (see next section for details).
- On SD memory cards, you can prevent accidental deletion by sliding the write protection switch on the card (see p. 85) to the position marked **LOCK**.

#### Procedure

Press the **PROTECT** button (1.24).

- The corresponding sub-menu appears in the monitor display (1.33).



#### Notes:

The setting process can be cancelled at any time by pressing the **PROTECT** button again. The following controls and their functions are not available during the entire setting process: the **MENU** (1.29), **DELETE** (1.25) and **INFO** (1.23) buttons

Subsequent operations are controlled by the menu, i.e. in principle in exactly the same way as described in the “Menu control” section (on p. 93). After specifying the relevant menu display, this is done in several steps using the direction buttons (1.31) and the **SET** button (1.22).

The first step is to decide


- whether you want to protect individual pictures **Protect** **Single** ,
- or
- all pictures simultaneously **Protect** **All** ,
- or
- whether you want to clear the existing protection for individual pictures **Unprotect** **Single** ,
- or
- for all pictures **Unprotect** **All** .

**Note:**


The following functions cannot be performed and the menu text appears in white instead of black to indicate this:

- Protecting a picture that is already protected, or if all pictures are already protected.
- Unprotecting a picture that is already unprotected, or if no pictures are already protected.

**Displays after protection/clearing protection**

After leaving menu control, the original monitor display appears again, with the corresponding symbol  for protected pictures (4.1.1/4.2.3).

**Note:**

The  symbol also appears if a picture that is already protected is opened.

## Additional functions

### Changing the picture numbering

The LEICA M8 assigns sequential numbers to the pictures, in the default factory setting regardless of whether the memory card is changed. However, you can at any time specify that

- a. the numbering sequence begins anew every time the memory card is changed, or
- b. the numbering sequence starts immediately, e.g. to assign the picture numbers to different events, subjects etc.

### Setting the function

1. In the main menu (see p. 80/93) select **Picture Numbering** (5.1.9),
2. and in the associated sub-menu select the desired function.

Depending on the selected function, the file numbering starts again from 1 either after the next change of memory card - **Standard** - or from the next picture - **Set back now**.

### Notes:

The change of numbering relates exclusively to the file names, e.g. **L100 0001**, which are only shown in the **INFO** display (see p. 79).

After the memory card has been formatted, the sub-menu **Set back folder No. now** can be used to set back the folder number also

### Formatting the memory card

It is normally not necessary to format (initialize) a memory card that has already been used. If however a card that has yet to be formatted is inserted for the first time, it must be formatted. In such cases the **Format** sub-menu appears automatically.

Nevertheless, it is recommended that the memory card be reformatted occasionally, as a certain amount of residual data (info accompanying pictures) can take up memory capacity.

### Important:

When formatting, all information present on the card, including picture files and all other data, e.g. music files, is irretrievably lost. You should therefore make a habit of transferring all your pictures onto a secure bulk storage medium, e.g. the hard drive on your computer, as soon as possible.

### Notes:

- Do not turn the LEICA M8 off while the memory card is being formatted.
- If the memory card has been formatted in another device, such as a computer, you should reformat it in the LEICA M8.
- If the memory card cannot be formatted, you should ask your dealer or Leica Information Service (address, see p. 137) for advice.
- Even protected pictures (see previous section) are deleted when formatting the memory card.


### Procedure

1. In the main menu (see p. 80/93) select **Format** (5.1.21).
2. Use the **SET** button (1.22) to call up the associated sub-menu.
3. To guard against unintentional settings, you then have to confirm in the corresponding sub-menu using the right direction button (1.31) that you definitely want to format the memory card.

### Taking photographs with the self timer

You can use the self timer to take a picture with a delay of either 2 or 12 s. This can be particularly useful, for example in the first case if you want to avoid the picture being out of focus due to camera shake when releasing the shutter or, in the second case, for group photographs where you want to appear in the picture yourself. In such cases we recommend that the camera is placed on a tripod.

### Setting and using the function

1. Set the main switch (1.19) auf .
2. In the main menu (see p. 80/93) select **Self timer** (5.1.3) and set the desired delay time in the associated sub-menu.

3. To start the delay time press the shutter release button (1.20) to the first pressure point, see p. 89).
  - The LED (1.7) on the front of the camera flashes for the first 10s of a 12s delay time, then it stays lit continuously, to show the progress of the delay time. The countdown is shown on the monitor at the same time.

While the self timer delay time is running, it can be aborted at any time by pressing the **SET** button (1.22) – the relevant setting is retained and the function can be restarted by touching the shutter release button again.

**Important:**

In self timer mode, the exposure is not set when depressing the shutter release to the pressure point, but immediately before the picture is taken.

**Transferring data to a computer**

The LEICA M8 is compatible with the following operating systems:

Microsoft® : Windows® XP

Apple® Macintosh® : Mac® OS X

The LEICA M8 is equipped with a USB 2.0 interface for transferring data to a computer. This allows fast data transfer to computers with the same kind of interface. The computer used must have either a USB port (for direct connection to the LEICA M 8) or a card reader for SD cards.

**Note:**

When using a USB connection, note the following: Connecting two or more devices to a computer or connecting using a hub or extension cables can result in malfunctions.

**Connecting and transferring the data with Windows® XP**


1. Use the supplied USB cable (C) to connect the USB socket (1.34) on the LEICA M8 to the USB socket on the computer. First the flap (1.26) over the USB socket on the camera must be pulled downwards to open it.
  - A message appears on the Desktop informing you that the LEICA M8 has been detected as new hardware (only the first time this connection is made).
2. Double click on this message (first time only).
  - a. A drop-down menu headed “M8 Digital Camera” will appear for the data transfer wizard.
3. Click on “OK” and follow the further instructions by the wizard to copy pictures in the usual way to a folder of your choice for future access.



### Connecting and transferring the data with Mac® OS X

1. Use the supplied USB cable (C) to connect the USB socket (1.34) on the LEICA M8 to the USB socket on the computer. First the flap (1.26) over the USB socket on the camera must be pulled downwards to open it.
2. Use the program “Digital Pictures” to transfer pictures from the card to the computer

### Important:

- Only use the USB cable (C) supplied.
- While data is being transferred from the LEICA M8 to the computer, the connection may not under any circumstances be broken by removing the USB cable, as otherwise the computer and/or the LEICA M8 may crash, and the memory card may even be irreparably damaged.
- The LEICA M8 cannot be turned off or automatically switch itself off due to a lack of battery power while data is being transferred from the camera to the computer, as this may cause the computer to crash. For the same reason the battery must never be removed from the camera whilst the connection is active. If the battery capacity runs short during data transfer, the corresponding symbol flashes (, s. S. 85). In this case, stop the data transfer, switch off the LEICA M8 (see p. 89) and charge the battery (see p. 83).

### Connecting and transferring the data with card reading units

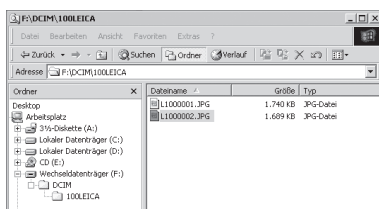
The picture files can also be transferred to other computers using a standard card reader for SD memory cards. Card readers with a USB interface are available for computers with a USB interface. If your computer is equipped with a PCMCIA slot (common on portable models), plug-in cards with a PCMCIA connection are available as an alternative. These devices, and further information about them, is available from a computer accessory dealer.

### Note:

The LEICA M8 is fitted with an integral sensor which detects the position of the camera – horizontal or vertical (both directions) – for each picture. This information allows the pictures automatically always to be presented upright when subsequently displayed on a computer running the appropriate programs (not in the camera monitor!).

### Data structure on the memory card

When the data stored on a card is transferred to a computer, the following folder structure is used:



Up to 9999 pictures can be stored in each of the folders 100LEICA, 101LEICA etc.

### Installation of supplied software

Two CD-ROMs are supplied with the LEICA M8. These contain the programs LEICA DIGITAL CAPTURE 1.0 (E) to operate your LEICA M8 from a computer, and Capture One LE from Phase One (F) to professionally convert, edit, print, and archive the pictures you take with your LEICA M8. To start installation, double click either on the installation application listed as Setup.exe (“Execute”), or wait for the installation dialogue to start automatically. If you encounter problems when installing the software, please refer to the Help file for the software. In many versions of Windows the operating system may give a warning that a Windows signature is not available. Please ignore this message and continue with the installation.

### System requirements

Microsoft® Windows® XP Professional or Home Edition with Service Pack 1; Mac OS X 10.3

#### Note:

The serial numbers are printed on the paper sleeves of the CDs.

### Working with DNG raw data

If you have selected the standardized and future-proof DNG (Digital Negative) format, you need highly specialized software to convert the saved raw data at the highest quality, for example using the professional raw data converter supplied, Capture One LE from Phase One (F).

Capture One LE offers quality-optimized algorithms for digital color editing, enabling both very low noise and astounding picture resolution.

During editing you can make later changes to parameters such as white balance, noise reduction, gradation, sharpness etc., so as to achieve the highest picture quality.

### Computer remote control of the camera

LEICA DIGITAL CAPTURE 1.0 software is supplied on the CD-ROM E. This enables you to use a computer to

1. release the LEICA M8 shutter,
2. set functions in the picture parameters menu (see p. 81/94), and
3. save picture data directly on to the computer.

### Using LEICA DIGITAL CAPTURE 1.0

1. Connect the LEICA M8 to the computer using the USB cable supplied (C),
2. switch the camera on (see p. 89), and
3. call up the program.

- The respective window will open on your Desktop.

The various functions are listed in a clear and self-explanatory way; the menu items can be set just as on the camera itself.

## Miscellaneous

### **System accessories for the LEICA M8**

#### **Exchangable lenses**

The Leica M system provides a basis for optimum adaptation to fast and unobtrusive photography. The range of lenses includes focal lengths from 16 to 135 mm - for the LEICA M8 this corresponds to effective focal lengths from 21 to 180mm (bright-line frames for focal lengths  $\geq 90$ mm (effective) are unavailable, see also p. 102) - and speeds up to 1:1.

#### **Filters**

UVa filters and circular polarization filters are available for current LEICA M lenses fitted with standard filter threads.

#### **Universal Wideangle Viewfinder M**

The LEICA universal wide-angle viewfinder M is a thoroughly practical accessory. It can be used without restriction on all analog and digital Leica M models and – just like the viewfinder in the camera – shows the picture area for the wide-angle focal lengths 16, 18, 21, 24 and 28 mm with mirrored-in bright-line frames.

The viewfinder is equipped with parallax compensation and a vial (spirit level) for exact leveling of the camera.

#### **Viewfinder Magnifier M 1.25x**

The LEICA 1.25x viewfinder magnifier significantly simplifies picture composition when using focal lengths above 35mm. It can be used on all Leica M models and magnifies the central area of the viewfinder image by a quarter. The 0.68x viewfinder on the LEICA M8 thus becomes a viewfinder with 0.85x. A security chain with snap fasteners prevents loss and can be used to hang the viewfinder on the carrying strap's fastening ring.

The viewfinder magnifier is supplied in a leather bag. A loop on the bag allows the viewfinder magnifier to be stored on the camera's carrying strap, where it is protected and ready for use (order no. 12 004).

#### **M8 Hand Grip**

As a practical accessory, we recommend the M8 handle, which allows you to hold the LEICA M8 extremely steadily and to carry it with one hand. It is fitted in place of the standard bottom cover. (order no. 14 471 black, 14 472 silver).

#### **Correction lenses**

For optimum adaptation of the eye to the camera's viewfinder, we offer corrective lenses with the following positive or negative diopter values (spherical): 0.5/1/1.5/2/3.

#### **Cases**

For the LEICA M8 two neoprene ever-ready cases with different front sections for differently long lenses are available, as well as a classical leather ever-ready case with unbuttoning front section, and a Protector resembling the bottom part of a conventional ever-ready case. As such, this Protector ensures that the camera body is protected even when photographing. For more extensive camera configurations, the classic combination case for a camera and up to three lenses or the classic universal case for a camera and up to five lenses are also available.

#### **Spare parts**

Camera bayonet cover  
Carrying strap  
Lithium ion battery  
Charger, complete  
(with 3 interchangeable  
plugs, car charging lead)  
USB cable (2 m, 4 to 6 pin)

#### **Order no.**

14 195  
14 312  
14 464  
14 463  
420-200.023-000

## Precautions and care instructions

### General precautions

Do not use the LEICA M8 in the immediate vicinity of devices with powerful magnetic, electrostatic or electromagnetic fields (e.g. induction ovens, microwave ovens, television sets or computer monitors, video game consoles, cell phones, radio equipment).

- If you place the LEICA M8 on or very close to a television set, its magnetic field could interfere with picture recordings.
  - The same applies for use in the vicinity of cell phones.
  - Strong magnetic fields, e.g. from speakers or large electric motors, can damage the stored data or the pictures.
  - If due to the effects of electromagnetic fields the LEICA M8 malfunctions, remove the battery and then switch the camera on again.
- Do not use the LEICA M8 in the immediate vicinity of radio transmitters or high-voltage power lines.
- Their magnetic fields can also interfere with picture recordings.

Protect the LEICA M8 from contact with insect sprays and other aggressive chemicals. Petroleum spirit, thinner and alcohol may not be used for cleaning.

Certain chemicals and liquids can damage the LEICA M8 body or the surface finish.

- As rubber and plastics sometimes emit aggressive chemicals, they should not remain in contact with the LEICA M8 extended periods.

Ensure that sand and dust cannot get into the LEICA M8, e.g. on the beach.

- Sand and dust can damage the camera and the memory card. Take particular care when changing lenses and when inserting and removing the card.

Ensure that water cannot get into the LEICA M8, e.g. when it is snowing or raining and on the beach.

Moisture can cause malfunctions and even permanent damage to the LEICA M8 and the memory card.

If salt water spray gets onto the LEICA M8, wet a soft cloth with tap water, wring it out thoroughly and wipe the camera with it. Then wipe thoroughly with a dry cloth.

### LCDs

- If the LEICA M8 is exposed to significant temperature fluctuations, condensation can form on the monitor. Wipe it carefully with a soft dry cloth.
- If the LEICA M8 is very cold when it is switched on, the LCDs may at first appear darker than usual. As soon as the camera warms up, the LCDs will regain their normal brightness.

The monitor is manufactured using a high-precision process. This ensures that, of the total of around 230,000 pixels, more than 99.995% work correctly and only 0.005% remain dark or are always light. However, this is not a malfunction and it does not impair the reproduction of the picture.

### Sensor

- Cosmic radiation (e.g. on flights) can cause pixel defects.

### Condensation

If condensation has formed on or in the LEICA M8, you should turn it off and leave it to stand at room temperature for around an hour. Once the camera temperature has adjusted to room temperature, the condensation will disappear by itself.



#### Care instructions

- As any soiling also represents a growth medium for microorganisms, you should take care to keep the equipment clean.

#### For the camera



- Only clean the LEICA M8 with a soft, dry cloth. Stubborn dirt should first of all be covered with a well-thinned cleaning agent and then wiped off with a dry cloth.
- To remove stains and fingerprints, the camera and lens should be wiped with a clean lint-free cloth. Tougher dirt in hard to reach corners of the camera body can be removed with a small brush. Be careful not to damage the shutter blades, for instance with the shaft of the brush.
- All mechanically operated bearings and sliding surfaces on your LEICA M8 are lubricated. Please remember this if you will not be using the camera for a long period of time. To prevent the lubrication points becoming gummed up, the camera shutter should be released a number of times every three months. It is also recommended that you repeatedly move and use all other controls, such as the image field selector. The distance and aperture setting rings on the lens should also be moved periodically.
- Take care not to scratch the sensor for the 6-bit coding (1.11) in the bayonet fastening, or to get it dirty. Take care also that no grains of sand or similar particles enter the fastening, where they could scratch the bayonet. Never wet this component when cleaning it!

#### For lenses

- Normally, a soft hair brush is sufficient to remove dust from the outer lens elements. However, in case of more stubborn dirt, they can be carefully cleaned with a very clean, soft cloth that is completely free of foreign matter, using circular motions from the inside to the outside. We recommend micro-fiber cloths (available from photographic and optical specialists) that are stored in a protective container and can be washed at temperatures of up to 40°C (without fabric softener, never iron!). Cloths for cleaning glasses, which are impregnated with chemicals, should not be used as they can damage the lens glass.
- Take care not to scratch the 6-bit coding (1.10) in the bayonet fastening, or to get it dirty. Take care also that no grains of sand or similar particles enter the fastening, where they could scratch the bayonet. Never wet this component when cleaning it!
- For optimum front lens protection in unfavorable photographic conditions (e.g. sand, salt water spray), use transparent UVa filters. However, you should bear in mind that, like all filters, they can cause unwanted reflections in certain backlight situations and with high contrasts. The generally recommended lens hood also protects the lens from unintentional fingerprints and the rain.

#### **For the battery**

Rechargeable lithium ion batteries generate power through internal chemical reactions. These reactions are also influenced by the external temperature and humidity. Very high or low temperatures reduce the life of the battery.

- Always remove the battery if you will not be using the LEICA M8 for a long period of time. Otherwise, after several weeks the battery could become totally discharged, i.e. the voltage is significantly reduced, as the LEICA M8 uses a low no-load current (to save the date) even when it is turned off.
- Lithium ion batteries should be stored only in the partially charged condition, i.e. neither totally discharged nor fully charged (the top panel LCD [1.12] shows a value in the range  to ). For very long storage periods, it should be charged for about 15 minutes twice a year to prevent complete discharging.
- Always ensure that the battery contacts are clean and freely accessible. While lithium ion batteries are proof against short circuits, they should still be protected against contact with metal objects such as paper clips or jewelry. A short-circuited battery can get very hot and cause severe burns.
- If a battery is dropped, check the casing and the contacts immediately for any damage. Using a damaged battery can damage the LEICA M8.

- Batteries have only a limited service life.
- Take damaged batteries to a collection point to ensure correct recycling.
- Never throw batteries into a fire as this can cause them to explode.

#### **For the charger**

- If the charger is used in the vicinity of radio receivers, it can interfere with the reception; make sure there is a distance of at least 1m between the devices.
- When the charger is in use, it can make a noise (buzzing) – this is quite normal and is not a malfunction.
- When it is not in use, disconnect the charger from the mains as otherwise it uses a certain (very small) amount of power even when no battery is inserted.
- Always keep the charger contacts clean, and never short circuit them.

#### **For memory cards**

- Whilst a picture is being stored or the memory card is being read, it may not be removed, nor may the LEICA M8 be turned off or exposed to vibrations.
- For safety, memory cards should only ever be stored in the antistatic cover supplied.
- Do not store memory cards where they will be exposed to high temperatures, direct sunlight, magnetic fields or static discharge.
- Do not drop or bend a memory card as this can damage it and result in loss of the stored data.
- Always remove the memory card if you will not be using the LEICA M8 for a long period of time.
- Do not touch the connections on the rear of the memory card and keep them free of dirt, dust and moisture.
- It is recommended that the memory card be reformatted from time to time, as fragmentation occurs when deleting, which can block some of the memory capacity.

### Cleaning the sensor

If any dust or dirt particles should adhere to the sensor cover glass, depending on the size of the particles this can be identified by dark spots or marks on the pictures.

The LEICA M8 can be returned to Leica Camera AG Customer Service (address: see p. 137) for chargeable cleaning of the sensor; this cleaning is not covered by warranty. You can also perform the cleaning yourself, using the menu function **Sensor cleaning**. This allows access to the sensor by keeping the shutter open.

### Notes:

- To protect the LEICA M8 against ingress of dust etc. into the interior of the camera, it is important always to have a lens or a cover fitted to the camera body.
- For the same reason, when changing lenses work without delay and in an environment that is as dust-free as possible.

### Setting the function

1. In the main menu (see p. 80/93) select **Sensor cleaning** (5.1.16), and
  - The respective sub-menu appears.
2. providing the battery has sufficient capacity, i.e. at least 60%, confirm the function in the sub-menu.
  - A further sub-menu will appear

### Note:

If however the battery has insufficient capacity, the warning message **Attention Battery too low for sensor cleaning** appears instead, indicating that the function is not available, i.e. **yes** cannot be selected

3. Press the shutter release button (1.20). The shutter opens and remains open.

Perform the cleaning. Scrupulously comply with the following instructions:

### Notes:

- As far as possible, both inspection and cleaning of the sensor should be performed in a dust-free environment to prevent further soiling.
- An 8x or 10x magnifying glass is very useful for the inspection and after cleaning.
- Lightly adhering dust can be blown off the sensor cover glass using clean and, if necessary ionized gases such as air or nitrogen. It makes sense to use a (rubber) bellows with no brush for this purpose. Special, low pressure cleaning sprays such as "Tetental Antidust Professional" can also be used in line with their specified usage.

- If the particles cannot be removed from the sensor in this way, please refer the matter to your Leica Information Service (address: see p. 137).
- If whilst the shutter is open the battery capacity falls to less than 40%, a warning message **Attention Battery low Switch off camera** will appear on the monitor. At the same time a sustained beep tone will sound, which continues until the camera is switched off. Switching the camera off will cause the shutter to be closed again. Be absolutely sure in this case that the shutter window is clear, i.e. that no object can obstruct the closing movement of the shutter, otherwise damage may occur!

### Important

- Leica Camera AG accepts no liability for damage caused by the user when cleaning the sensor.
- Do not attempt to blow dust particles off the sensor cover glass using your mouth; even tiny droplets of saliva can cause marks that are difficult to remove.
- Compressed air cleaners with high gas pressure may not be used as they can also cause damage.
- Take care to avoid touching the sensor surface with any hard objects during inspection and cleaning.

### **Storage**

- If you are not using the LEICA M8 for an extended period of time, we recommend that you:
  - a. switch it off (see p. 88),
  - b. remove the memory card (see p. 85) and
  - c. remove the battery (see p. 84), (after 3 months the date and time that were entered will be lost, see p. 95).
- A lens works like a magnifying glass if bright sunlight shines on the front of the camera. The camera must therefore never be set aside in strong sunlight without protection. Use the lens cover and keep the camera in the shade (or immediately put it away in the case) help to prevent damage to the interior of the camera.
- You should preferably store the LEICA M8 in a closed and padded container so that nothing can damage it and it is protected from dust.
- Store the LEICA M8 in a dry, adequately ventilated place, where neither high temperatures nor high humidity will occur. When used in humid conditions, the LEICA M8 should be completely cleared of all moisture before being stored away.
- Photo cases that became wet during use should be emptied to prevent damage to your equipment caused by moisture and any leather-tanning residue released.
- To prevent fungal growth during use in hot, humid tropical climates, the camera equipment should be exposed to the sun and air as much as possible. Storage in airtight containers or cases is recommended only if a desiccant such as silica gel is placed in the container.
- To prevent the formation of fungus, do not store the LEICA M8 in a leather case for extended periods of time.
- Note the serial numbers of your LEICA M8 (engraved on the accessory shoe) and lenses, as these are extremely important in case of loss.

## Warning messages

### Bottom cover open

Close the bottom cover (see p. 84).

### No SD card

Insert a memory card (see p. 85).

### SD card full

Insert another memory card (see p. 85) or delete pictures you no longer need (see p. 117/118).

### SD card protected

(protected against deletion)

Reset the write protection for the memory card (see p. 85).

### No valid image to play

No pictures are saved on the inserted card.

In order for playback to take place, pictures first of all need to be taken or another card with saved pictures inserted (see p. 85).

### Data transfer

Picture data are currently being transferred to the SD card.

All other picture processing functions are unavailable whilst this is in progress.

### Error code XX

Please ask you Leica dealer or Leica agent for your country regarding this information (addresses are shown on the warranty card).

## Malfunctions and their resolution

### 1. The LEICA M8 does not respond when I turn it on.

- 1.1 Has the battery been correctly inserted?
- 1.2 Does the battery have sufficient charge?  
Use a charged battery.
- 1.3 Has the bottom cover been correctly attached?

### 2. The LEICA M8 turns itself off again as soon as I turn it on.

- 2.1 Does the battery have sufficient charge to operate the LEICA M8?  
Charge the battery or insert a charged battery.
- 2.2 Is there any condensation? This can occur if the LEICA M8 is moved from a cold place to a warm place.  
Wait until the condensation clears.

### 3. The LEICA M8 shutter refuses to trip.

- 3.1 Picture data are currently being transferred to the memory card and the intermediate memory is full.
- 3.2 The capacity of the memory card is exhausted and the intermediate memory is full. Delete pictures you no longer require before taking new ones.
- 3.3 No memory card has been inserted and the intermediate memory is full.

### 4. I cannot save the picture.

- 4.1 Is a memory card inserted?
- 4.2 The capacity of the memory card is full.  
Delete pictures you no longer require before taking new ones.

### 5. The monitor is too dark or too bright.

- 5.1 When viewing the monitor image from strongly angled positions it is always more difficult to see. If it is too pale or too dark although you are looking at the monitor full on: Select a different brightness.

### 6. The picture I have just taken is not shown in the monitor

- 6.1 When setting the LEICA M8 to picture mode, is the **Auto Review** function switched on?

### 7. I cannot display the picture.

- 7.1 Is a memory card inserted?
- 7.2 The memory card does not contain any data.

### 8. Despite being connected to a computer, I cannot transfer any data.

- 8.1 Check whether the computer and the camera are connected correctly.

### 9. The date and time displays show incorrect values or are blank.

- 9.1 The LEICA M8 has not been used for a long period, particularly if the battery has been removed.
  - 1. Insert a fully charged battery
  - 2. Set the date and time.

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## Technical data and descriptions

**Camera type** Compact digital view- and rangefinder system camera.

**Lens attachment** Leica M bayonet with additional sensor for 6-bit coding.

**Lens system** Leica M lenses from 16 to 135 mm

**Picture format/image sensor** 3936 x 2626 pixels (10.5 MPixel) CCD chip, active area 18 x 27 mm, extension factor 1.33.

**Resolution** Adjustable, DNG™: 3916 x 2634, JPEG: 3936 x 2630/2952 x 1972/1968 x 1315/1312 x 876 pixels.

**Data formats** DNG™ (raw data), 2 JPEG compression levels.

**File size** DNG™: 10,31 MByte, JPEG: 10.35/5.8/2.5/1.1 Mbyte.

**Color spaces** Adobe® RGB, sRGB, ECI RGB.

**White balance** Automatic, manual, 6 presets, color temperature entry.

**Storage medium** SD cards up to 4 GB, larger SD cards with firmware update.

**Menu languages** German, English, French, Spanish, Italian, Japanese, Chinese.

**Compatibility** Mac® OS X, Windows® XP.

**Exposure metering** Exposure metering through the lens (TTL), strongly center-weighted with working aperture. Center-weighted TTL metering for flash lighting with system-compatible SCA-3000/2 standard flash units.

**Measurement principle** Metered by light reflected by a bright blade in the first shutter curtain.

**Metering range** (at ISO 160/23°) At room temperature and normal humidity, this corresponds to EV0 to 20 or f/1 and 1.2 s to f/32 and 1/1000 s. Flashing of the left triangular LED in the viewfinder indicates values below the metering range.

**Measurement cell for available light** (continuous light measurement) Silicon photo diode with collection lens, positioned at the center in the camera bottom.


**Sensitivity range** ISO 160/23°, 320/26°, 640/29°, 1250/32° or ISO 2500/35°, manual setting using the menu.

**Exposure mode** Optionally automatic control of shutter speed – with corresponding digital display – with manual aperture pre-selection (aperture priority mode), or manual settings of shutter speed and aperture and adjustment using LED light balance.

**Flash exposure control**

**Flash unit connection** Via accessory shoe with center and control contacts.

**Synchronization** Optionally triggered at the first or second shutter curtain.

**Flash synchronization speed**  = 1/250 s; slower shutter speeds possible.

**Flash exposure metering** (with SCA-3501/3502 adaptor, or SCA-3000 standard flash unit such as LEICA SF 24D). Control with center-weighted TTL-pre-flash metering.

**Flash measurement cell** 2 silicon photo diodes with collection lens on the camera bottom.

**Flash exposure compensation**  $\pm 3\frac{1}{3}$  EV in  $\frac{1}{3}$  EV steps settable on the SCA-3501/3502 adaptor. On the LEICA SF 24D  $\pm 3$  EV in  $\frac{1}{3}$  EV steps or 0 to  $-3$  EV in 1 EV steps can be set using computer control.

**Displays in flash mode** Readiness: by the flash symbol LED in the viewfinder being constantly lit; confirmation of success: By the LED remaining lit or flashing rapidly for a while after taking the picture; underexposure display by the LED going out for a while.

**Viewfinder**

**Viewfinder principle** Large, bright bright-line frame range- and viewfinder with automatic parallax compensation.

**Eyepiece** Adjusted to  $-0.5$  dptr. Correction lenses from  $-3$  to  $+3$  dpt. available.

**Framing** By projection of pairs of bright-line frames: For 24 and 35 mm, or for 28 and 90 mm, or for 50 and 75 mm. Automatic projection when lens is attached. Frame selector can be used to select any of the bright-line frame pairs.

**Parallax compensation** The horizontal and vertical difference between the viewfinder and the lens is automatically compensated according to the relevant distance setting, i.e. the bright-line frames automatically align with the subject detail recorded by the lens.

**Matching of viewfinder and actual picture** The size of the bright-line frame corresponds to an image size of 18 x 27 mm at the shortest setting distance for each focal length. At infinity setting, depending on the focal length, approx. 9% (28 mm) to 23% (90 mm) more of the view is recorded than indicated by the corresponding bright-line frame.

**Enlargement** (for all lenses) 0.68x.

**Wide base rangefinder** Split or superimposed image rangefinder shown as a bright field in the center of the viewfinder image.

**Effective base width** 47.1 mm (mechanical base width 69.25 mm x viewfinder enlargement 0.68x).

**Displays**

**Viewfinder** (lower edge) LED symbol for flash status, four-digit seven segment LED digital display with upper and lower points, display brightness adapted to external brightness, for: warning of exposure compensation, automatically generated shutter speed for aperture priority mode, indication for use of Metering memory lock, warning of being above or below metering range in aperture priority mode and countdown of shutter speeds slower than 2s

LED light balance with two triangular and one central circular LED for manual setting of exposures. The triangular LEDs give the direction of rotation of the aperture setting ring and shutter speed dial to adjust the exposure. Also for warning of when the metering range is overshoot or undershot.

**On the top panel** Monochrome LCD for frame counter (number of pictures remaining) and battery status (5-step).

**On the rear panel** 2.5" monitor (color-TFT LCD) with 230,000 pixels, displays see p. 78.



**Shutter and release**

**Shutter** Microprocessor-controlled metal blade focal plane shutter with vertical movement.

**Shutter speeds** In aperture priority mode (A) steplessly from 32 s to  $1/8000$  s. Using manual setting 4 s to  $1/8000$  s in half steps, **B** for long exposures of any duration (together with self timer T function, i.e. first release = shutter opens, second release = shutter closes),  $\frac{1}{250}$  s shortest shutter speed for flash synchronization.

**Shutter cocking** By integral motor, low-noise system.

**Series exposures** approx. 2 pictures/s, approx. 10 pictures in sequence.

**Shutter release button** Three steps: Exposure metering on – memory lock (in aperture priority mode) – shutter release. Integrated standard cable release thread.

**Self timer** Delay optionally 2 or 12 s (menu setting), indicated by flashing LED on front of camera and corresponding display on the monitor.

**Switching the camera on/off** Using the main switch on the camera top panel, selectable automatic switch-off of the camera electronics after about 2/5/10 minutes, reactivation by touching the shutter release button.

**Power supply** 1 lithium ion battery, nominal voltage 3.7 V, capacity 1900 mAh. Capacity data is shown in the display on the left of the top panel, when the shutter is held open (for sensor cleaning with **Clean Sensor**); in addition, low capacity is indicated by an acoustic warning.

**Charger** Input: 100–240 V AC, 50/60 Hz, automatic switching; Output: 4.2 V CD, max. 750 mA.

**Camera body**

**Material** All-metal body of magnesium die-casting, KTL dip painted, synthetic leather covering. Top panel and bottom cover brass, black lacquered or silver chromium plated.

**Frame selector** Brass, black lacquered or silver chromium plated, allows the bright-line frame pairs to be manually displayed at any time (e.g. to compare detail).

**Tripod socket** Stainless steel  $1/4$ " DIN tapped socket in bottom cover, in line with the center of the lens.

**Operating conditions** 0 to +40 °C

**Interface** 5-pin mini-USB 2.0 High-Speed socket for quick data transfer.

**Dimensions** (width x depth x height) 138.6 mm x 36.9 mm x 80.2 mm

**Weight** approx. 590 g (incl. battery)

**Scope of delivery**

Battery charger 100–240 V with 3 mains plug adaptors (Euro, UK, USA), lithium ion battery, USB cable, carrying strap, CD-ROM with user manual as PDF, Remote Control Software LEICA DIGITAL CAPTURE 1.0, CD-ROM with Capture One LE from Phase One.

Subject to changes to design, manufacture and range.

### **Leica Academy**

As well as outstanding high-performance products for taking, reproducing and viewing photographs, for many years we have also been offering the special services of the Leica Akademie, with practical seminars and training courses, which are intended to share our knowledge about the world of photography, projection and magnification with both beginners and advanced photographic enthusiasts.

The contents of the courses, which are run by a trained team of experts in the modern, well-equipped training suite at our Solms factory and in the nearby Gut Altenberg, vary from general photography to areas of special interest and offer a range of suggestions, information and advice for your own work. More detailed information and the current Leica Academy brochure are available from:

Leica Camera AG  
Leica Akademie  
Oskar-Barnack-Str. 11  
D-35606 Solms  
Phone: +49 (0) 64 42-208-421  
Fax: +49 (0) 64 42-208-425  
la@leica-camera.com

### **Leica on the Internet**

Current information about products, news, events and the Leica company is available on our homepage on the Internet at:

<http://www.leica-camera.com>

### **Leica information service**

The Leica information service can provide you with an answer to any technical questions relating to the Leica range either in writing, on the telephone or by e-mail.

Leica Camera AG  
Informations Service  
Postfach 1180  
D-35599 Solms  
Phone: +49 (0) 64 42-208-111  
Fax: +49 (0) 64 42-208-339  
info@leica-camera.com

### **Leica Customer Service**

Leica AG's Customer Service center, or the repair service of the Leica national offices (see the Warranty Card for an address list), is available to assist you in maintaining your Leica equipment or in case of damage. Please contact your nearest authorised Leica dealer.

Leica Camera AG  
Customer Service  
Solmser Gewerbepark 8  
D-35606 Solms  
Phone: +49 (0) 64 42-208-189  
Fax: +49 (0) 64 42-208-339  
customer.service@leica-camera.com



my point of view

Leica Camera AG / Oskar-Barnack-Str. 11 / D-35606 Solms  
[www.leica-camera.com](http://www.leica-camera.com) / [info@leica-camera.com](mailto:info@leica-camera.com)  
Telefon +49 (0) 64 42-208-0 / Telefax +49 (0) 64 42-208-333