











# **DESIGNATION OF PARTS**

# Front view

- 1 Strap lugs
- 2 Lens release button
- Self-timer LED / AF assist lamp
- 4 Bayonet
- 5 Contact strip

# Top view

- 6 Microphone
- Accessory shoe
- 8 Main switch
- 9 Shutter button
- 10 Setting wheel
- 11 Setting wheel button
- 12 Top display
- 13 Setting wheel
- 14 Setting wheel button

# Rear view

- 15 Speaker
- 16 MENU button
- 17 FN button
- 18 PLAY button
- 19 Viewfinder
- 20 Eye sensor
- **21** Diopter adjusting dial

- 22 Direction pad23 Center button24 Status LED
- 25 Monitor

# Bottom view

26 Door over battery compartment and memory card slot

- a Lock/unlock lever
- 27 Tripod thread
- 28 Battery locking latch
- 29 Battery compartment
- 30 Memory card slot

# Lens

31	Lens hood
	a Index points
32	Front mount
	a Male bayonet for lens hood
	Index points for lens hood
	C Internal thread for filters
33	Focus ring
34	Zoom ring
35	Index for focal length
36	Fixed ring
	a Red alignment button
37	Contact strip

#### ΕN

# **FOREWORD**

#### Dear Customer,

We hope you enjoy using your new Leica CL. Please read this manual thoroughly so that you can get the most out of your camera.

Use the Quick Start Guide for a fast introduction to your new Leica camera.

# SCOPE OF DELIVERY

Please check that you have all of the accessories before using your Leica CL for the first time.

- a. Lithium-ion battery Leica BP-DC12
- b. Battery charger Leica BC-DC12 with cahngeable mains cord
- c. Carrying strap
- d. Camera bayonet cover
- e. Accessory shoe cover
- f. Registration card

# ACCESSORY

Please visit the Leica Camera AG website for information on the extensive range of Leica CL accessories:

# www.leica-camera.com

# SPARE PARTS

Camera bayonet cover	16060
Accessory shoe cover	423-116.001-013
Carrying strap	439-612.060-000
Lithium-ion battery Leica BP-DC12	19 500
Battery charger Leica BC-DC12	423-116.001-032



**Disposal of electrical and electronic equipment** (Applies within the EU, and for other European countries with segregated waste collection systems.)

Order no

This device contains electrical and/or electronic components and must therefore not be disposed of in general household waste! Instead, it should be disposed of at a recycling collection point provided by the local authority. This costs you nothing. If the device contains standard or rechargeable batteries, these must be removed first and also be disposed of in line with relevant regulations.

Further information on the subject is available from your local council, your local waste collection company, or in the store where you purchased this device.

Meaning of the different categories of information in this manual

#### Note:

Additional information

#### Important:

Failure to observe the instructions may cause damage to the camera, accessories or the photos

# Attention:

Failure to observe the instructions may cause personal injury

The production date of your camera can be found on the stickers in the Guarantee Card and/or on the packaging. The format is year/month/day.

The specific approvals for this device can be found in the camera menu.

- In the Main Menu (5th page), select Camera Information
- Im submenu Regulatory Information wählen

# **LEGAL INFORMATION**

- Please ensure that you observe copyright laws. The recording and publication of pre-recorded media such as tapes, CDs, or other published or broadcast material may contravene copyright laws.
- This also applies to all of the software supplied.
- With regard to videos created using this camera: This product is licensed under the AVC Patent Portfolio license for the personal use of a consumer. Other uses in which the consumer does not receive remuneration to (i) encode video in compliance with the AVC standard ("AVC video") and/or (ii) decode AVC video that was encoded by a consumer engaged in a personal activity and/or was obtained from a video provider licensed to provide AVC video, are also permitted. No license is granted or shall be implied for any other use. Any other use, including but not limited to providing AVC video in exchange for remuneration, may require a separate license agreement with MPEG LA, L.L.C. For more information please visit the MPEG LA, L.L.C. website at: www.mpegla.com
- The SD logo is a registered trademark.
- Other names, company and product names referred to in these instructions are trademarks or registered trademarks of the respective companies.

# **SAFETY NOTES**

- Always store small parts (e.g. the accessory shoe cover) as follows:
  - out of reach of children
  - in a location where they will not get lost and will not be stolen
- Modern electronic components react sensitively to electrostatic discharge. Since people can easily pick up charges of tens of thousands of volts by walking on synthetic carpets, a discharge can occur when you touch the camera, particularly if it is placed on a conductive surface. If only the camera housing is affected, this discharge is harmless to the electronics. However, despite built-in safety circuits, outer contacts, such as those in the accessory shoe, should not be touched for safety reasons.
- When cleaning the contacts, do not use an optical micro-fiber cloth (synthetic); use a cotton or linen cloth instead. Before touching the contacts, you can make sure you discharge any electrostatic charge by deliberately touching a heating or water pipe (conductive, grounded material). Dirt deposits and oxidation on the contacts can be avoided by storing your camera in a dry location with the lens cap and flash shoe/viewfinder cap on.
- Use only the recommended accessories to prevent faults, short circuits or electric shock.
- Do not attempt to remove parts of the housing (covers). Repairs must be done at authorized service centers only.
- Do not use your camera 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 camera on or very close to a television set, or use it near mobile phones, image recording may be disturbed.
- Strong magnetic fields, e.g. from speakers or large electric motors, can damage the stored image data.

- If the camera malfunctions due to the effects of electromagnetic fields, turn it off, remove the battery, and then turn it on again.
  Do not use the camera in the immediate vicinity of radio transmitters or high-voltage power lines. Their magnetic fields can also interfere with recordings.
- Protect the camera 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 camera's housing or the surface finish.
- As rubber and plastics sometimes emit aggressive chemicals, they should not remain in contact with the camera for a long time.
- Ensure that sand and dust cannot get into the camera, e.g. on the beach. This is the case especially when inserting and removing the memory card. Sand and dust can damage both the camera and the memory card.
- Ensure that water cannot get into the camera, e.g. when it is snowing or raining and on the beach. Moisture can cause malfunctions and even permanent damage to the camera and the memory card.
- If salt water spray gets onto the camera, wet a soft cloth with tap water, wring it out thoroughly and wipe the camera with it. Then wipe down thoroughly with a dry cloth.
- If condensation has formed on or in the camera, you should turn it off and leave it to stand at room temperature for approximately an hour. Once the camera temperature has adjusted to room temperature, the condensation will disappear by itself.
- Use carrying straps only for their intended purpose as a carrying strap on a camera / on binoculars. Any other use carries the risk of injury and may possibly result in damage to the carrying strap and is therefore not permitted.

- Carrying straps are usually made of strong material. Keep the carrying strap away from children. It is not a toy and poses the potential risk of strangulation to children.
- For the same reason, carrying straps should not be used for cameras/binoculars during sporting activities where there is a high risk of getting caught by the carrying strap (e.g. climbing in the mountains and similar outdoor sports).

#### Disclaimer

 Information including personal information may be altered or vanish due to erroneous operation, effect of static electricity, accident, malfunction, repair, or other handlings. Please note in advance that Leica Camera AG is not liable in any way for any direct or indirect damage from the alteration or vanishing of information or personal information.

#### Important

- Use <u>only</u> the accessories specified and described in this instruction or by Leica Camera AG with the camera.
- Es darf <u>ausschließlich</u> das mitgelieferte Netzkabel verwendet werden.
- Das Netzkabel darf <u>ausschließlich</u> an dem mitgelieferten Ladegerät verwendet werden und ist nicht zur Verwendung an anderen Geräte bestimmt.

# General notes about the monitor

- If the camera is exposed to significant temperature fluctuations, condensation can form on the monitor. Wipe it off carefully with a soft dry cloth.
- If the camera is very cold when turned on, the monitor image will initially be slightly darker than normal. As soon as the monitor warms up, it will reach its normal level of brightness.
- Cosmic radiation (e.g. during flights) can cause pixel defects.

The monitor is manufactured in a highly precise process. This ensures that of the total of around 1,040,000 pixels more than 99.995% work correctly and only 0.005% remain dark or are always bright. However, this is not a malfunction and it does not impair the reproduction of a recording.

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# **PREPARATIONS**

# ATTACHING THE CARRYING STRAP



# **CHARGING THE BATTERY**

Your Leica CL is powered by a lithium-ion battery. The battery must be removed from the camera before charging. The battery must be removed from the camera before charging.

# Attention

- <u>Only</u> the battery types specified and described in this manual and/or specified and described by Leica Camera AG may be used in this camera.
- This battery may <u>only</u> be used in the units for which it is designed and may only be charged exactly as described. The use of other chargers that are not approved by Leica Camera AG can cause damage to the batteries and, in extreme cases, serious or life-threatening injuries.batteries
- Using the battery contrary to these instructions and using battery types not specified in these instructions may result in an explosion.
- The batteries must not be exposed to sunlight, heat, humidity or condensation for extended periods. Batteries must not be placed in a microwave oven or in a high-pressure vessel, as this may cause an explosion.
- Never throw batteries into a fire as this can cause them to explode.
- Damp or wet batteries must not be charged or used in the camera under any circumstances.
- Always ensure that the battery contacts are clean and freely accessible.

- Whilst lithium-ion batteries are secured against short circuits, they should still be protected against contact with metal objects like 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 camera.
- A battery must be removed from the camera or charger immediately and replaced if it produces noise, becomes discolored, deformed, or overheated or if it shows any sign of leakage. Continued use of a damaged battery may cause overheating and a risk of fire and/or explosion.
- If liquid leaks out or you smell burning, keep the batteries away from heat sources, as leaked fluid can catch fire.
- The charger supplied should be used <u>exclusively</u> for charging this battery type. Do not attempt to use it for other purposes.
- Ensure that the power socket used is freely accessible.
- Heat is generated during charging. Therefore batteries must not be charged in small, enclosed or unventilated spaces.
- The battery and charger must not be opened. Repairs may only be carried out by authorized service centers.
- Keep batteries out of the reach of children. Swallowing batteries can cause suffocation.

Dispose of used batteries in line with the information provided in this manual.

#### First Aid

- Battery fluid may cause blindness if it comes into contact with the eyes. Immediately wash the eyes thoroughly with clean water. Do not rub the eyes. Seek medical attention immediately.
- If leaked fluid gets onto the skin or clothing, there is a risk of injury. Wash the affected areas with clean water.

#### Notes

- Batteries must be charged before use. The battery is supplied partially charged, but it should be fully charged before long periods of use.
- In order to charge the battery, it must have a temperature of between 0°C and 35°C / 32°F and 95°F (otherwise the charger may not turn on or may turn off again).
- Lithium-ion batteries can be charged at any time, regardless of their current charge level. If a battery is only partly discharged when charging starts, it is charged to full capacity faster.
- Lithium-ion batteries should only be stored partly charged, i.e. not when fully discharged or fully charged. For very long storage periods, batteries should be charged for around 15 minutes twice a year to prevent total discharge.
- The batteries warm up during the charging process. This is normal and not a malfunction.
- A new battery only reaches its full capacity after it has been fully charged and – by use in the camera – discharged 2 or 3 times. This discharge procedure should be repeated roughly every 25 cycles.

- Rechargeable lithium-ion batteries generate power through internal chemical reactions. This reaction is influenced by ambient temperature and humidity. To maximize the life of the battery, it should not be exposed to extremely high or low temperatures for long periods (e.g. in a parked car in summer or winter).
- Even with optimum conditions of use, every battery has a limited service life. After several hundred charging cycles, this becomes noticeable as the operating times get significantly shorter.
- The replaceable battery supplies another back-up battery that is built into the camera. This back-up battery ensures that the date and time data entered is retained for up to 2 days. If this back-up battery runs out it must be recharged by inserting a charged main battery. Once the replaceable battery has been inserted, the full capacity of the back-up battery is recovered after about 60 hours. This process does not require the camera to be turned on. However, the date and time will have to be set again.
- Remove the battery if you will not be using the camera for a long period of time. Turn the camera off using the main switch before removing the battery. Otherwise, after several weeks the battery could become totally discharged. In this case, the voltage is sharply reduced as the camera still consumes a small amount of current for saving your settings even when it is turned off.
- The date and time need to be reset after a battery that was left in the camera has been exhausted, this is usually after a maximum of 3 months.

# PREPARING THE CHARGER

The appropriate mains cord for the local sockets must be attached to the charger.



## Note

The charger automatically adjusts to the relevant mains voltage.

# **INSERTING THE BATTERY IN THE CHARGER**



# CHARGE STATUS DISPLAYS

A properly operating charging process is indicated by the status LED lighting up in green. When it goes out, the battery is fully charged.



# CHANGING THE BATTERY AND MEMORY CARD

▶ Turn off the camera (see p. 18)

# Open the door over the battery compartment / memory card slot



# Inserting the battery





# Removing the battery





# Important

Removing the battery with the camera turned on can result in your settings being deleted, a loss of picture data, and damage to the memory card.

# Charge level displays

The battery charge level is indicated in the monitor. (see p. 90 "Displays in the monitor/viewfinder")

# Insert the memory card

SD, SDHC, or SDXC memory cards can be used in the Leica CL.





Removing the memory card



#### Notes

- Do not touch the memory card contacts.
- If the memory card cannot be inserted, check that it is aligned correctly.
- The range of SD/SDHC/SDXC cards is too large for Leica Camera AG to be able to completely test all available types for compatibility and quality. No damage to the camera or the card is generally to be expected. As some "no name" cards may not fully comply with the SD/SDHC/SDXC standards, Leica Camera AG cannot provide any guarantee of function.
- Video recordings in particular require a high write speed.
- Do not open the door and do not remove the memory card or the battery while the status LED is lit to indicate that the camera is accessing the memory. Otherwise, the data on the card may be destroyed and malfunctions can occur in the camera.
- Since electromagnetic fields, electrostatic charges, and defects on the camera or the card can lead to damage or loss of the data on the memory card, we recommend that you also transfer the data to a comptuer and save it there.

- For the same reason, we suggest that you always store the memory card in an antistatic case.
- Proper camera function cannot be guaranteed when using WLAN memory cards.
- SD, SDHC, and SDXC memory cards have a write protection slider, which can be used to prevent unintentional storage and deletion of pictures. This slider is located on the non-beveled side of the card; in the lower position, marked LOCK, the data is protected.

# Attention

- Keep memory cards out of the reach of children.
- Swallowing memory cards can cause suffocation.

Close the door over the battery compartment / memory card slot



# **CHANGING THE LENS**

# **Detaching the lens**

#### Attaching the lens



- Turn off the camera
- Hold the lens at the fixed ring
- Align the red index button on the lens with the release button on the camera body
- In this position, insert the lens straight
- Turn the lens in a clockwise direction until you hear and feel it click into place



- Turn off the camera
- Hold the lens at the fixed ring
- Press down the release button on the camera body
- Turn the lens in a counter-clockwise direction until its red index button is aligned with the release button
- Remove the lens

#### Notes

- To prevent dust from getting into the interior of the camera etc., it is necessary to always have a lens or a camera bayonet cover.
- For the same reason, when changing lenses work quickly in an environment that is as dust-free as possible.
- Body cap or lens rear cover should not be stored in the pocket of clothing, as they attract dust that can get into the camera when they are fitted.

# COMPATIBLE LENSES

All Leica TL lenses essentially have the same external construction: they have an external bayonet fitting for the lens hood, an internal thread for filters, a focus ring, a fixed ring with a red index button for the changing lens, and a contact strip for transferring information and control signals. Leica CL zoom lenses also have an additional zoom ring with its own index.

Leica SL lenses as well as Leica TL lenses can be attached to the Leica CL with its L bayonet, making full use of all their functions. In addition, Leica M and R lenses can be used in conjunction with the Leica M/R adapters.

# Depth of field

Since Leica SL and TL lenses do not have an aperture ring, there is no depth of field scale. For the corresponding values, refer to the tables on the Leica Camera AG website.

# Exposure metering and control with Vario lens

Some Leica TL and SL zoom lenses have a variable speed, i.e. the effective aperture opening depends on the focal length set. To prevent inappropriate exposures, the desired focal length must be determined before storing the measured value or changing the combination of shutter speed and aperture. For further details, refer to the sections under "Exposure metering and control" starting on page 45. When using non-system compatible flash units, the aperture setting on the flash unit must correspond to the actual aperture.

# Lens hood



Leica CL lenses are supplied with optimized lens hoods. Thanks to their symmetrical bayonet, they can be attached quickly and easily including in reverse, for space-saving storage.

Lens hoods reduce stray light and reflection, as well as preventing damage and dirt on the front lens.

# Filters

Screw-on filters can be used on lenses for Leica CL. For the appropriate diameter, refer to the technical data in the relevant lens' manuals.

# **CAMERA OPERATION**



# MAIN SWITCH

The Leica CL is turned ON and OFF via the main switch 8:

- Red dot visible = Turned off
- Red dot not visible = Turned on

The monitor image appears when the camera is turned on.

## Notes

- The first time you turn on the camera, or when you turn it on after resetting all settings, a welcome video starts. The Language submenu then appears, and when you have made the settings the Date & Time submenu appears, and finally, once you have made the settings here, the monitor screen of the picture mode appears.
- In this manual, all references to the monitor image apply equally to the viewfinder image since the respective displays are identical.

# SHUTTER BUTTON

The shutter button 2 works in two stages. Lightly pressing activates both automatic focusing and exposure metering and control, and stores the relevant settings/values. If the camera was previously in standby mode, this reactivates it and the monitor image appears again. Pressing the shutter button all the way down takes a picture.

# SETTING WHEELS / SETTING WHEEL BUTTON / TOP DISPLAY

Both setting wheels 10 13 are used

- in picture mode for exposure control (see p. 45)
- in review mode for different functions (see p. 29)
- in menu control mode, the right setting wheel is used to navigate. (see p. 20)

The respective setting wheel functions are indicated on the monitor beneath the wheels as soon as one of them is rotated by one detent position in picture mode.

The buttons within both setting wheels **11 14** allow different functions to be assigned to them in picture mode.

In menu control mode, the right setting wheel button is used to select and confirm settings.

A top display **12** is located between the setting wheels. It visualizes a number of items.

# Note

Details on the setting wheel and button operation, as well as the indications in the top display, can be found in the respective sections.

# LOCKING/UNLOCKING THE SETTING WHEELS

Both setting wheels can be locked.

# Using gesture control

► Touch the respective function display until , appears in the bottom center of the monitor image (after approx. 2 s)

# Using menu control

- In the Main Menu (4th page), select Wheel Lock in Live View
- In the submenu, select Right Wheel or Left Wheel
- Activate or deactivate the function in the respective submenus

A locked setting wheel is indicated by  $\square$ 

# MENU CONTROL

Many settings on the camera are controlled using Menu control. Navigate using the **MENU** button **16**, the center button **23**, or the right setting wheel button **11**, plus either the direction pad **22** or the right setting wheel **10**. In some cases, the **FN** button **17** and **PLAY** button **18** are also used. The respective settings and menu item setting steps are clearly displayed on the monitor.



The two menu sections: Main Menu and Favorites menu

The Main Menu always includes all 37 menu items. Up to 15 of these menu items can be assigned to the Favorites menu. This enables the most frequently used menu items to be accessed especially quickly and easily. In der default setting enthält das Favorites menu 7 menu items. Details about this menu option can be found on the following pages.

The following is valid for both menus: One page contains a maximum of 8 menu items, hence, the Favorites menu consists of 1 or 2 pages while the Main Menu consists of 5 pages.

# Calling up menu control

Press the MENU button 1x

The menu appears whenever at least one menu item has been assigned to the Favorites menu. It then serves as the "start page" or access to the menu control. However, if <u>no</u> menu item is assigned to this Favorites menu, the Main Menu appears instead.



Calling up the Main Menu while the Favorites menu is opening:

- a. Directly
  - ► Press the **MENU** button 2x
- a. Favorites menu is just opening
  - Press the MENU butto 1x again (possible to call up, not depending on the activated menu item)

or

Select the Main Menu (listed as the last menu item in the Favorites menu, if necessary on the 2nd page) with the right setting wheel or upper/lower side of the direction pad

In each case, the first page in Main Menu appeas.

# Camera operation

# Elements of menu control



- A Scrollbar: current position in the menu list
- B Menu item designation
- C Number of the page called up
- Setting/Value of menu item: The active menu item (white lettering, dark background, underlined in red).
  - This applies to all menu levels
- Triangle: further submenus

# Scrolling in the menu list

Line by line

Press the direction pad up/down, or turn the right setting wheel



# Page by page

 Press the MENU button (repeatedly), until the desired page appears



# Selecting a setting / a value in the submenu

 Select menu item, using direction pad, center button, right setting wheel or right setting wheel button

In the submenu

- a. a list of settings
  - Press the direction pad up/down, or turn the right setting wheel

The respective active option changes.



- b. a setting scale
  - Set the desired value on the scale by
    - turning the right setting wheel
    - pressing the left or right side of the direction pad
    - touching  $\clubsuit$  the desired value on the scale
    - swiping  ${\ensuremath{\overline{\$}}}^\circ$  so that the desired value is centered



# Exiting a submenu including confirming a setting

Press the center button or right setting wheel button

The menu list reappears, the confirmed (new) setting is displayed on the left side of the active menu item line.

# Exiting a submenu without confirming a setting

Press the left side of the direction pad or the MENU button

The menu list reappears; the retained (previous) setting is displayed on the left side of the active menu item line. The direction pad is not available for this operation in the case of scale-type submenus.

# Or

Press the shutter button
The picture mode monitor image appears.

# Or

Press the PLAY button

The review mode monitor image appears.

#### Favorites menu

For the max. 15 menu items that you can assign to the Favorites menu, almost all of the menu options of the Main Menu are available (see p. 88 for a complete list).

- ▶ In the Main Menu (4th page), select Customize Control
- In the submenu, select Edit Favorites
- Select the desired menu item
- By pressing either the right side of direction pad, center button, or the right setting wheel button, add the selected menu item to the Fevorites menu (In) or remove it from there (Iff).

A warning message appears if the Favorites menu already contains 15 options when you try to add an additional menu item to it.

#### Note

If you deactivate all menu items, the Favorites menu will be deleted alltogether.

In such cases, when calling up menu control the Main Menu appears immediately at the first press of the **MENU** button.

# Direct access to menu function

To facilitate especially quick operation through direct access in picture mode, you can assign one menu item each to the **FN** button **17** and right setting wheel button **11**. In default mode, **51** is assigned to the right setting wheel button,

and Self Timer is assigned to the  $\sf{FN}$  button.

Calling up the assigned function

▶ Press the respective button briefly (≤ 0,7 s)

# Setting the assigned function / Menu item called up with the respective buttons

You can set the majority of the menu items/functions called up through direct access using either gesture control or the physical controls. For this purpose, their selectable options are arranged in the form of a movable band across the lower part of the monitor image.

Some menu items though, in which several parameters have to be set, are displayed and operated exactly as in the 'normal' menu control.

Starting point for further settings:

The respective movable band-type submenu is already called up (in the illustration White Balance).

The currently active setting displayed in the center is highlighted in yellow.

#### Using gesture control



#### Note

Settings/values initially outside the monitor image can be accessed by repeatedly touching those visible, or, in larger steps, by swiping those at the monitor image edges.

#### Using physical controls

 Press the right or left side of the direction pad, or turn the right setting wheel

The selected function does not have to be confirmed, it is automatically active.

#### Notes

- Movable bands are <u>not</u> of the endless loop type.
- In review mode, the single image delete function is assigned to the  $\ensuremath{\mathsf{FN}}$  button.

# Customizing the buttons

Up to eight menu items/functions each can be assigned to the both buttons using menu control. Many of the menu items in the Main Menu are available (see p. 88 for a complete list).

- ▶ In the Main Menu (4th page), select Customize Control
- In the submenu, select Edit Right Wheel Push in Live View, or Edit Rear FN Button in Live View
- Select in the list by turning the right setting wheel
- Press the right side of the direction pad, the center or right setting wheel button to activate (III) or deactivate (IIII) the function

#### Note

The available fuctions are identical for both buttons.

#### Changing the button function

- Press the respective button long (≥ 0.7 s)
- A list of the available items appears.
- By turning the right setting wheel, select the desired function
- Confirm the setting by pressing the center or right setting wheel button.

#### Notes

- Selecting one function automatically switches the previously active one off.
- Switching the camera off does not change the setting, whereas resetting the camera to its default situation using the reset function (Reset) does.

# Camera operation

# **TOUCH CONTROL**

As pointed out on the previous pages, some settings of the Leica CL can be controlled using the gestures listed to the bottom on the touch-sensitive monitor if desired.

# Note

A light touch is enough, do not press.



Tap briefly



Swipe



Tap twice

Swipe





two-finger pinch

two-finger spread



Long touch, drag and drop

# General comments on menu control

- Settings for menu items that differ from the above explanations or include additional steps, are described in the sections dealing with the relevant options.
- Some menu items may not be accessible, e.g. because the respective function setting is fixed when using a <u>Scene Mode</u>, or because, in the case of a mounted and accordingly featured flash unit, the setting can only be performed on that unit. These menu items are then indicated by a gray text (instead of white) and cannot be selected.

# **BASIC CAMERA SETTINGS**

# MENU LANGUAGE

- ▶ In the Main Menu (5th page), selectLanguage
- Select the required language

Apart from a few exceptions (button labels, short designations), the language of all texts is changed.

# DATE/TIME

▶ In the Main Menu (5th page), selectDate & Time

# Setting the date / Select the date format

In the Date & Time submenu, select Date Setting

To switch between the setting options:

 Press the right or left side of the direction pad, or turn the right setting wheel

To set the options:

Press the direction pad up/down



Selecting the time zone

- In the Date & Time submenu, select Time Zone
- Select the desired time zone

Activating/deactivating daylight saving time

- In the Date & Time submenu, select Daylight Saving Time
- Activate or deactivate the functions

# Setting the Time / Select the time format

In the Date & Time submenu, select Time Setting

To switch between the setting options:

 Press the right or left side of the direction pad, or turn the right setting wheel

To set the options:

Press the direction pad up or down



# Note

Even if no battery is inserted or if the battery is flat, the date and time settings are retained for a few days thanks to the built-in back-up battery. However, after this time they have to be reset.

# AUTOMATIC CAMERA SHUTDOWN

When this function is activated, the camera switches to energy-saving standby mode after the selected time.

- In the Main Menu (4th page), select Power Saving
- In the submenu, select Auto Power Off
- Select the desired setting (2 min/5 min/10 min/0ff)

# Note

When the camera is in standby mode, it can be turned on at any time by pressing the shutter button or by turning it off and on with the main switch.

# ACOUSTIC SIGNALS

You can set whether you want particular operations or a full memory card to be indicated by tones, or whether you prefer operation of the camera and photography itself to be largely quiet.

- In the Main Menu (4th page), select Acoustic Signal
- In the submenus of Electronic Shutter Sound, AF Confirmation and Acoustic Signals, switch the functions on or off and set the volume in the Volume submenu

# ADJUSTING THE VIEWFINDER EYEPIECE

The viewfinder can by adjusted from +4 to -4 diopters, so that it is exactly set to match your eye. To do so:

- To unlock the setting knob to the right of the viewfinder, pull it out.
- While looking through the viewfinder, turn the dial so that you can see both the image and all the displayed information perfectly clearly.
- Push the setting knob back into the locked position.



# MONITOR/VIEWFINDER SETTINGS

Switching between monitor and viewfinder

The displays are identical, irrespective of whether they appear in the monitor or the viewfinder. However, you can specify when and where the displays appear. In the default setting, the changes are automatic (using the proximity sensor in the viewfinder eyepiece). But you can also specify that the displays should appear only in the monitor or only in the viewfinder:

- In the Main Menu (3rd page), select Display Settings
- ► In the submenu, select EVF-LCD
- Selectt the desired function
  - Taking pictures, playing and menu control always via the monitor
  - EVE: Taking pictures, playing and menu control always via the viewfinder
  - TID\_3717Auto: Using the proximity sensor to select the monitor or viewfinder
  - EVF Erweitert: Taking pictures always with viewfinder, play or menu control always with monitor

To ensure that the switch happens reliably, you can also change the sensitivity of the sensor.

- In the Main Menu (3rd page), select Display Settings
- In the submenu, select Eye Sensor Sensitivity
- Select the desired setting

Users without glasses can retain  $\mbox{Low}$  , people who wear glasses should select  $\mbox{Medium high}.$ 

# **Monitor brightness**

For optimum visibility and to adapt to different lighting conditions, the monitor image brightness can be adjusted.

- In the Main Menu (3rd page), select Display Settings
- In the submenu, select LCD Brightness
- Selectt the desired function

In Auto, the brightness is adjusted automatically.

# Top display

The top display between the setting wheels can be switched on or off:

- In the Main Menul (3rd page), select Display Settings
- In the submenu, select Top Display
- Selectt the desired function
  - In: always on
  - Off: always off
  - Auto: automatic control, depending on the ambient brightness

# Auto power off of all the displays

This function enables you to select the time after which the top display, the monitor and the viewfinder are switched off completely to save power.

- In the Main Menu (4th page), select Power Saving
- In the submenu, select All Displays Auto Off
- GSelect the desired setting

# Information displays

Pressing the center button allows you to select the monitor display according to your desired information set.

#### In picture mode

Factory setting = none of the two lines Press 1x = header and footer lines Press 2x = Initial (default) status

#### In review mode

Factory setting = header and footer lines Press 1x = none of the two lines Press 2x = Initial (default) status

The different options are arranged in an endless loop, therefore they can all be called up by pressing once or several times. A detailed listing of the displays can be found on the following pages.

#### Notes

- When picture mode is switched on, it is always with the last used display status.
- In video mode, both lines are shown at all times.

# Selection of further information and assisting displays

In addition to the information in the header and footer lines, you can also call up further information and assisting displays during pictures and review.

# In picture mode

- In the Main Menu (3rd page), select Capture Assistants
- In the submenu, select Grid, Horizon, Histogram or Clipping
- Activate or deactivate the functions

# In review mode

The respective settings for Clipping and Histogram under the Play Mode Setup in the Main Menu (4th page) are done the same way.

# Notes

- If the grid display is switched on, it appears at all times, whether or not the information of the header and footer lines are called up (see p. 29). If both are not called up, the level display, histogram and clipping displays also do not appear.
- For video recordings, only the histogram display is available.

# Grid (Grid)

The grid divides the image frame into nine equally-sized sections. It facilitates the picture composition as well as the exact camera orientation.

# Level Gauge (Horizon)



Thanks to integrated sensors, the Leica CL can indicate its orientation. These displays enable you to align the camera precisely in the longitudinal and transverse axes to capture critical subjects, e.g. architecture pictures.

In the monitor, two long vertical lines left and right of the image center indicate the position relative to the longitudinal axis - green when level, red when tilted. The tranverse axis in level position is indicated by two green double-lines immediately left and right of the image center. When tilted, these are white, additionally a short red line appears above or below.

# Note

The display precision is  $\leq 1^{\circ}$ .

# Histogram

The histogram depicts the brightness distribution of the picture. The horizontal axis shows the tone values from black (left) through gray to white (right). The vertical axis corresponds to the number of pixels at each brightness level.

This form of representation – in conjunction with the impression of the picture itself – provides an additional quick and easy assessment of the exposure setting.

The histogram can also be moved to the bottom right corner of the monitor screen.



# Notes

- In picture mode, the histogram should be regarded as a "trend indicator" and not as a depiction of the exact numbers of pixels.
- For a picture with flash, the initial histogram cannot represent the final exposure as the flash is fired after the display.
- The histograms, when reviewing and taking a picture, may differ slightly from one another.
- The review histogram is not available for simultaneous review of several smaller pictures or for enlarged pictures.

# Clipping

The clipping display marks bright areas in the image without definition. Such areas flash in black. Thus, it serves as a very simple and precise instrument for selecting and adjusting the exposure setting.



# Notes

- The clipping display is not available during video recording.
- The histogram and the clipping indicators are available when viewing both the entire picture and a section of it, but not when simultaneously viewing 12 or 30 reduced pictures.
- The histogram and clipping displays always refer to the currently shown picture section.

# BASIC PICTURE SETTINGS

# File format

The JPG format IPE and the standardized raw data format INE (= digital negative) are availabe. They can be utilized both separately and simultaneously.

- In the Main Menu (2nd page), select Photo File Format
- GSelect the desired setting

# JPG Resolution

When the JPE format is selected, pictures can be taken with 3 different resolutions (numbers of pixels). The available settings are [JPE (24 MP), MJPE (12 MP) and SJPE (6 MP) (MP = Megapixel). This allows you to adjust the setting precisely to the intended use or to the available memory card capacity.

- ▶ In the Main Menu (2nd page), select JPG Resolution
- GSelect the desired setting

# Note

The INE format is always stored at the maximum resolution regardless of the IPE settings.

# White balance

In digital photography, white balance ensures neutral, i.e. natural, reproduction of color in any light. It is based on the camera being preset to reproduce a particular color as white.

You can choose between automatic white balance, various presets, one fixed setting based on selective measurements, and direct setting of the color temperature.

- Automatic (automatic setting)
- Daylight (for outdoor pictures in sunshine)
- Cloudy (for outdoor pictures in cloudy conditions)
- Shadow (for outdoor pictures with the main subject in shadow)
- Tungsten (für Illumination with light bulbs)
- Flash (for illumination with electronic flash)
- Gray Card 1 (memory slot for your own measured results)
- Color Temperature (memory slot for fixed setting)

# **Fixed presets**

- In the Main Menu (1st page), select White Balance
- GSelect the desired setting

# Manual setting by metering

- In the Main Menu (1st page), select White Balance
- In the submenu, select Gray Card 1
- In the submenu, select next to Gray Card 1

A yellow frame appears in the center of the monitor with an instruction below it.

- Aim the frame at a uniform white or gray object that completely fills the frame
- Press the center button to confirm

The camera releases the shutter and carries out metering and storage.

The settings can subsequently be retrieved using Gray Card 1.

**Direct color temperature setting** 

- In the Main Menu (1st page), select White Balance
- In the submenu, select Color Temperature
- In the submenu , select next to Color Temperature
- Select the desired value

# ISO sensitivity

The ISO setting specifies the possible shutter speed and aperture combinations at a particular brightness. Higher sensitivities allow faster shutter speeds and/or smaller apertures (for "freezing" rapid movements or to increase the depth of field), although this can also result in greater noise.

- ▶ In the Main Menu (1st page), select [50]
- Select the desired setting (i.e. Auto ISD for the automatic setting, or one of the eleven fixed settings)

Within the Auto ISO option it is possible to limit the sensitivity range to be used (e.g. to control noise), and the slowest shutter speed to be used can also be specified (e.g. to prevent blurred pictures of moving subjects).

- In the Main Menu (1st page), select Auto ISD Settings
- In the submenu, select Maximum Exposure Time and/or Maximum ISD
- Select the desired settings

# JPG image properties (Film Style)

One of the many advantages of digital photography is that it is very easy to change critical properties of a picture.

On the Leica CL, you can influence color reproduction, contrast, sharpness and color saturation before taking the picture.

#### Note

The functions and settings described in this section relate exclusively to pictures in the **set** format. If the **set** file format is specified, these settings have no effect as in this case the image data is always saved in its original format.

#### **Color reproduction**

For the color reproduction, you can select either **Standard**, Vivid – for highly saturated colors – and **Natura**] – for slightly less saturated colors and a somewhat softer contrast. The black and white settings **B&W Natura**] (natural) und **B&W High Contrast** (high contrast) can be chosen as well.

- ▶ In the Main Menu (2nd page), select Film Style
- GSelect the desired setting

# Contrast, sharpness, saturation

For each color reproduction setting, the following three image properties can also be changed.

- The contrast, i.e. the difference between light and dark sections of the image, determines whether it has a more "flat" or "brilliant" effect. As a consequence, the contrast can be influenced by increasing or reducing this difference, i.e. by lighter reproduction of light sections of the image and darker reproduction of dark sections.
- Focus display at least of the main subject –using the correct focusing is a prerequisite for a successful picture. In addition, the impression of sharpness of a picture is determined by the edge sharpness, i.e. how small the transition area between light and dark is at edges in the picture. The impression of being in focus can thus be changed by expanding or reducing these areas.
- When shooting in color, saturation determines whether the colors in the picture tend to appear as "pale" and pastel-like or "bright" and colorful.
- In the Main Menu (2nd page), select Film Style
- In the submenu, select Film Style Settings

For each of the film style options selected in the previous step, you can change three image parameters in further submenus.

- Contrast
- Sharpness
- Saturation (not in the case of the two B/W settings)

The graduations available for this are Low, Medium low, Standard, Medium High and High

- Select the desired settings in the respective submenus
- Press the center button to confirm
#### Using Leica M and R lenses

The Leica M and R Adapters L allow the use of Leica M and R lenses. Lens profiles stored in the camera memory enable the following features:

- Flash exposure and reflector control use the lens data (see "Compatible flash units").
- In addition, the information is written to the EXIF data for the picture. When displaying extended image data, the lens focal length is also shown.

If the attached Leica M lens is equipped with 6 bit coding, or the attached Leica R lens features a ROM contact strip, the camera can automatically implement the respective profile. If, on the other hand the lenses do not have these features, the lens model must be entered manually.

- In the Main Menu (3rd page), select Lens Profiles
- In the submenu, select automatic lens identification(Auto), or manually enter the lens model in one of the lists, or switch off the function.

If you want to enter the lens model yourself

M-Lenses Or R-Lenses

To simplify the operation, the lens lists can be shortened by deleting all unused lens models:

- In the M-Lenses or R-Lenses Submenu, select Edit List of M-Lenses or Edit List of R-Lenses
- In these lists, activate (Im) or deactivate -(Im) the desired lens models

#### Note

When using Leica TL and SL lenses, this function is not available, the respective item is therefore not accessible, and the respective icon is 'grayed out'.

#### Image stabilization

When using Leica SL lenses featuring OIS, your Leica CL lets you take advantage of these lenses' built-in stabilization function. By doing so, you can often achieve sharp pictures at shutter speeds that would otherwise be too slow.

- In the Main Menu (2nd page), select Optical Image Stab.
- Activate or deactivate the functions

#### Note

For further information about OIS, see the respective lens's manual.

#### **Electronic Shutter**

The Leica CL has both a mechanical shutter and an electronic shutter function. You can use the mechanical shutter e.g. utilize the absolutely silent electronic shutter function for inconspicuous photography. In addition, this function extends the available shutter speed range. You can choose between two operational modes:

► Off

The mechanical shutter is used exclusively. Shutter speed range: 30 s to  $1\!/\!8000$  s

- Extended

If a faster shutter speed is required than is possible with the mechanical shutter, the electronic shutter function can be activated. Shutter speed range: 30 s - 1/8000 s + < 1/8000 s - 1/25000 s

– Always On

The electroninical shutter function is used exclusively. 30 s -  $1/25000\ s$ 

- ▶ In the Main Menu (2nd page), select Electronic Shutter
- GSelect the desired setting

#### Single/continuous mode

With the Leica CL, both single and continuous shooting is possible. Three speeds are available.

- ▶ In the Main Menu (1st page), select Drive Mode
- In the submenu, select Continuous Low Speed, Continuous Medium Speed, Continuous High Speed for continuous mode, or Single for single shot

#### Notes

- Picture series with Continuous High Speed are taken at a frequency of 10 fps<sup>1</sup>, provided that shutter speeds of 1/60 s and faster are used.
- Picture series are not possible when using the flash. If a flash function is activated, only one picture is taken.
- Serial exposures in combination with the self-timer are not possible. Therefore, only a single picture is taken if the self-timer is used.
- Nach einer Serie von maximal ca. 33 Aufnahmen (DNG + JPG) verlangsamt sich die Aufnahmefrequenz. This is due to the time required to transfer the data from the buffer memory to the card.
- Regardless of how many pictures are taken in a series, the last picture is always shown first when they are reviewed.

<sup>1</sup> mechanical/electronic shutter

# ture mode:

# PICTURE MODE

## FOCUSING

Your Leica CL allows automatic as well as manual focusing. There are two automatic modes - AFS (single autofocus) or AFS (continuous autofocus).

# AUTOFOCUS

- ▶ In the Main Menu (1st page), select Focusing
- ▶ In the submenu, select Focus Mode
- Select the desired setting

The set function is displayed in the monitor.

The Ass mode should be used if you want to take photos of subjects that do not, or hardly, move at all. Focus on the area that is to be in focus by applying light pressure to the shutter button (first pressure point). If the subject moves between first tapping the shutter button and the exposure, the desired part of the picture may no longer be in focus.

By contrast, the AFE mode should be used if you want to photograph moving subjects. Here, you also focus on the desired area using the first pressure point of the shutter button. While this is being held down to the first pressure point, the camera permanently focuses on the previously focused area.

A successful AF setting is displayed as follows:

- The color of the rectangle changes to green
- With multiple field metering up to 49 green rectangles appear
- An acoustic signal can be heard (if activated).

#### Notes

- With the shutter button pressed halfway, it is also possible in auto focus mode to manually change the automatical setting in autofocus mode with the lens's focus ring.
- The setting of the sharpness is saved along with the exposure setting.
- In certain situations the AF system is unable to set the distance correctly, e.g. when:
  - the distance to the subject you are aiming at is outside the setting range of the attached lens, and/or
  - the subject is not sufficiently illuminated (see next section). These situations and subjects are indicated by:
  - Color of rectangle changes to red,
  - With multiple field metering the display changes to a single red rectangle
- When using Leica M or R lenses with the Leica M or R Adapter L available as an accessory, only manual focusing is possible.

#### Important

The shutter button is not locked, regardless of whether or not the focusing is correct for the relevant subject.

#### LIMITING THE AUTOFOCUS SETTING RANGE

When focusing macro lenses, with their typically very short closest focusing distance, as well as with longer focal length lenses, the autofocus system takes longer to run through the complete setting range, i.e. from their closest focusing distance to infinity.

In order to quicken automatic focusing, a number of Leica TL lenses<sup>1</sup> allow limiting their setting ranges. This is advisable if you know that for certain subjects you will only be needing a lens's close focusing range, or the opposite.

#### Setting the function

- ▶ In the Main Menu (1st page), select Focusing
- ▶ In the submenu, select Focus Limit
- Activate or deactivate the functions

#### Using the function

Whether the Focus Limit function restricts automatic focusing to close range, or the opposite, depends primarily on the lens's setting. On the other hand, you can switch between ranges at any time by turning the focus ring. The following table illustrates the relationship.

Lens setting	Focus Limit is acti- vated	Modify the focusing range (turning the lens distance wheel)
working with shorter ranges	Autofocus is only set for <b>short range</b>	Focus setting 'jumps' to <b>long range</b> (Autofocus is limited to long range)
working with longer ranges	Autofocus is only set for <b>long range</b>	Focus setting 'jumps' to long range (Autofocus is limited to short range)

#### Notes

- The Focus Limit function is also available with certain Leica SL lenses (see corresponding manual), but not with other lenses attached using an adapter.
- If lenses are changed with the camera turned on, the functions' In setting will be reset to III.

<sup>1</sup> State 7/31/2017: Leica APO-Macro-Elmarit-TL 1:2.8/60 ASPH., Leica Vario-Elmar-TL 1:3.5-4.5/55-135 ASPH.

#### AF ASSIST LAMP

The built-in AF assist lamp extends the operating range of the AF system in poor lighting conditions. If the function is active, this light comes on as soon as the shutter button is pressed.

- ▶ In the Main Menu (1st page), select Focusing
- ▶ In the submenu, select AF Assist Lamp
- Select the desired setting

#### Note

The AF assist lamp illuminates a range of approximately 4 m.

#### AUTOFOCUS METERING METHODS/OPERATING MODES

For optimum adaption of the AF system to different subjects, situations and your compositional ideas, you can choose between seven AF metering methods on the Leica CL.

- ▶ In the Main Menu (1st page), select Focusing
- ▶ In the submenu, select AF Mode
- Select the desired setting

#### Spot-Spot/ Field metering Field

Both metering methods detect only those parts of the subject within the relevant AF frame.

• The metering fields are indicated by a small AF frame.

The very small metering range for spot metering allows focusing on tiny details of the subject.

The slightly larger **feet** metering zone is less critical when focusing, and therefore easier to handle while still allowing selective measuring.

This AF function can also be used for picture series in which the part of the subject you want to be in focus is always at the same off-center point in the image.

With both metering methods, you can do this by moving the AF frame, which is otherwise positioned in the center of the monitor screen, to another point:

Press direction pad on the relevant side

#### Note

In both cases, the metering fields remain at the last positions set even if the metering method is changed or the camera is turned off.

#### Subject tracking (Tracking)

This mode is a variation of field metering that can help to capture a focused picture of a moving subject.

In order to accomplish this, focusing always occurs automatically after you have indicated which subject should be captured

▶ In the AF Mode submenu, select Tracking

#### **Procedure:**

- Aim the AF frame at the desired subject or move it there accordingly
- Press the shutter button to the first pressure point The metering system locks on to the registered subject.
- ► Keep the shutter button half-pressed until you take the picture The AF frame 'follows' the locked subject.
- Fully press the shutter button to take the picture

#### Notes

- Before the subject is saved, the metering field can be moved just as Spot/Field metering.
- The tracking works identically, irrespective of whether AFS or AFE is used as the setting.
- Tracking stops when you let the shutter button go. In this case the metering zone will remain at the last position reached.

#### Touch-controlled autofocus (Touch AF)

In this mode, the AF frame can be moved for <u>every</u> picture, <u>without</u> additional settings in the menu. The metering characteristics and metering zone size correspond to **field** metering.

▶ In the AF Mode submenu, select Touch AF

#### Determining the metering zone area

Press the monitor at the required position in the image field



#### The AF frame 'jumps' to the selected position.



#### Touch-controlled shutter release (Touch AF + Release)

As a variant of  $\overline{\text{Touch AF}}$ , the  $\overline{\text{Touch AF}}$  + Release function can be used to not only focus, but also automatically take a picture with just one touch.

In the AF Mode submenu, select Touch AF + Release

#### Note

In both touch-controlled modes, the focusing process does not start when the shutter button is pressed to the 1st pressure point, but immediately when you touch the monitor.

#### Multiple field metering (Multi Paint)

This metering method detects the subject using a total of 49 zones. Focusing is carried out automatically on the parts of the subject at the shortest distance, thus providing maximum reliability for snapshots. The zones used are indicated with AF frames.

▶ In the AF Mode submenu, select Multi Point

#### Face detection

In this mode, your Leica CL automatically detects faces in the picture. The faces that are the shortest distance away are automatically focused. If no faces are detected, multi-zone metering is used.

In the AF Mode submenu, select Face Detection

# MANUAL FOCUSING

For certain subjects and situations, it can be beneficial to set the focus yourself, rather than using autofocus.

The manual focusing is suitable:

- when you are using the same setting for several pictures
- when it would be more work to use metering memory lock
- when you want to keep the setting at infinity for landscape pictures
- when you want to allow no or only a slower AF mode in poor, i.e. very dark, lighting conditions.
- ▶ In the Main Menu (1st page), select Focusing
- ▶ In the submenu, select Focus Mode
- Select MF

Manual focusing is carried out using the focus ring on the lens. The optimum setting is reached when the monitor screen shows the key part(s) of your subject as you want them to appear.

#### Note

Manual focusing is possible in auto focus mode as well - with the shutter button pressed halfway.

#### ASSIST FUNCTION FOR MANUAL FOCUSING

To make it easier to make the setting and to increase accuracy, the Leica CL provides you with two useful tools.

- Enlarged display of a central section: The larger details of the subject appear in the monitor, the more accurately you can assess their sharpness.
- Marking of clearly focused subjects (focus peaking): Edges of sharply rendered subject parts are marked in a color, making it easy to identify the best setting.

In the factory setting, both functions are activated. You can select only Focus Peaking, or only the enlargement function instead, or switch off both.

#### Selecting the function

- ▶ In the Main Menu (1st page), select Focusing
- ▶ In the submenu, select Focus Assist
- Select the desired setting

In the case of Focus Peaking, you can select the marking color, e.g. in order to ensure visibility in different ambient light situations or with different subjects:

- In the Focusing submenu, select Focus Peaking
- Select the desired color

- Setting the focus
- Determine the trimming
- Rotate the lens' focusing ring and the correct focus for the desired subject



• All subject details in focus are identified by their edges being highlighted in the selected color.

This is done according to the principle:

- maximum contrast = in focus
- Alternatively or additionally (see previous page), the monitor image switches to a 3x magnification mode.
- Additionally, another display appears indicating both the present magnification factor (highlighted in white), as well as the other available factor.
- You can increase the enlargement to 6x or switch between the two using the center button. The enlargement level that appears first is always the last one used. Approx. 5 s after the focusing ring was turned the last time, the camera automatically switches back to the original monitor image. This can also be initialized at any time by pressing the shutter button to the 1st pressure point.

- Focus peaking is based on subject contrast, i.e. differences between bright and dark.
- If you are using the Leica M- or R-Adapter L, the right setting wheel assignment changes to Focus Assist x3, x6 or Off.

## EXPOSURE METERING AND CONTROL

#### EXPOSURE METERING METHODS

Your Leica CL offers three exposure metering methods to adapt to prevalent lighting and other conditions like your working methods or artistic ideas.

- In the Main Menu (1st page), select Exposure Metering
- Select the desired setting

# Multiple field metering -



With this metering method, the camera automatically analyses the brightness differences in the subject and, by comparing them with programmed brightness distribution patterns, arrives at the likely position of the main subject and the corresponding best exposure. As a result, this method is particularly suitable for spontaneous, uncomplicated, and yet reliable photography, even under difficult conditions and therefore for the cameras automatic mode.

# Center-weighted metering -

This metering method allocates the highest weighting to the center of the image field, but also records all other areas. Particularly when used in conjunction with metering memory lock. it allows the exposure to be selectively adjusted to specific sections of the subject, while simultaneously taking into account the entire image field.

# Spot metering -

This metering method is concentrated exclusively on a small area in the center of the image. It allows exact measurement of tiny details for precise exposure - preferably in conjunction with manual setting.

For backlit pictures, for example, you normally need to prevent the brighter surroundings causing underexposure of the main subject. The much smaller metering field with spot metering enables these subject details to be selectively evaluated.

#### **EXPOSURE CONTROL**

Your Leica camera offers four exposure modes for optimized adjustment to the relevant subject or your preferred working method: program (P), aperture priority (A) und shutter priority mode (S), and totally manual setting (M) They are set the same way as the video mode and the Scene Mode Si

#### Setting the modes

Press the left setting wheel button

In the top display between the setting wheels, the normal indications are replaced by letters/icons representing the modes. The arrows to the left and right indicate how to change modes. Correpsonding arrows also appear next to the modes display in the footer line of the monitor screen.

► Turn the <u>left</u> setting wheel to select a mode In the top display, the indications change accordingly.



Approx. 2 s after the last turn of the setting wheel, the selected mode is set automatically.

To set the selected mode immediately:

Press the left setting wheel button or the shutter button

- The above mentioned modes are arranged in an endless loop, i.e. they can all be reached by turning in either direction.
- When using Leica M or R lenses with the Leica M Adapter L or the Leica R Adapter L, only A and M are available, i.e. neither P, nor S, nor the <u>Scene Mode</u>. If P, S or a <u>Scene Mode</u> is set, the camera automatically switches to A when the adapter is attached. In such cases, F0.0 is displayed instead of an aperture value.
- If a Leica TL or SL lens is attached again and the desired mode is **P**, **S** or one of the Scene Mode, they must be set again.
- Depending on the prevailing light conditions, the brightness of the monitor image can differ from that of the actual pictures taken. Particularly for long exposures on dark subjects, the monitor image appears considerably darker than the - correctly exposed - picture. See also 'Exposure Simulation', p. 47

# The setting wheel functions with the exposure control modes P, S, A and M $\,$

Depending on the mode set, the wheel functions differ:

 Р	S	А	Μ
Program shift	Shutter speed	Exposure compensa- tion	Shutter speed
Exposure compensa- tion	Exposure compensa- tion	Aperture	Aperture

Besides its 'primary' function, the right wheel can also be used to set other functions (default = ISO sensitivity):

- Press the right setting wheel button
  - In the top display between the setting wheels, the respective setting is indicated for approx. 4 s in the lower right corner (instead of the shutter speed).
  - The values appear in the form of a movable band across the lower part of the monitor image. The central value highlighted in yellow is the one set.
- Turn the right setting wheel

The displays change accordingly. Approx. 4 s after the last operation, the display switches back to its initial status

#### Note

Besides the default setting, 7 further menu items are available for direct access using the right setting wheel. For further details on this and on how to assign the desired function to the button, please see the section 'Direct access to menu items', p. 23.

#### Exposure simulation

In default mode and with the three automatic exposure modes  ${\sf P}, {\sf S}$  and  ${\sf A},$  the monitor image brightness represents the respective exposure settings<sup>1</sup>.

This allows you to assess and control the effect the respective exposure setting will have on the image before shooting. You can also utilize this function for manual exposure control:

- In the Main Menu (2nd page), select Exp. Preview
- Select P-A-S (only with program, aperture priority, and shutter priority modes) or P-A-S-M (also with manual setting)

 $<sup>^{\</sup>rm 1}$  This applies as long as the subject brightness and the set exposure do not result in exceptionally low or high brightness values, and provided internal exposure setting is not longer than 1/60 s.

#### Automatic program - P

The program mode provides fast and fully automatic photography. The exposure is controlled by an automatic shutter speed and aperture setting.

#### Taking a picture

Press the shutter button to the 1st pressure point The shutter speed and aperture are displayed in white. If a completely open or closed aperture combined with the fastest or slowest shutter speed will result in under or overexposure, both values are displayed in red.

If the automatically set pair of values appears to be appropriate for the intended composition:

Press the shutter button all the way down to take the picture

Changing the specified shutter speed / Aperture combinations (Shift)

Changing the preset values using the Shift function combines the reliability and speed of fully automatic exposure control with the opportunity to vary the speed/aperture combination selected by the camera at any time to fit in with your own ideas and intentions.

- This is done using the <u>right</u> setting wheel. If you prefer to use faster speeds, e.g. for sports shots, turn it to the left. On the other hand, if you prefer a larger depth of field, for landscape shots for example, and are prepared to accept the resulting shower shutter speeds, turn it to the right.
- The overall exposure, i.e. the brightness of the image, remains unchanged. The adjustment range is limited to guarantee correct exposure.
- Shifted pairs of values are indicated by a + next to the shutter speed.
- To prevent accidental use, after each picture, and also if exposure metering is automatically turned off after 12 s, the values revert to those set by the camera.

#### Scene modes

Besides the 'normal' program mode **P**, the menu item <u>Scene Mode</u> provides you with nine additional program mode options which ensure especially simple and accurate photography. One of these is a 'snapshot' program intended for general use: <u>Auto</u> (default setting). The other eight are customized for the specific needs of common types of subjects, another for camera use mounted on a spotting scope.

You will also find another three 'special' programs under the menu item Scene Mode:

Panorama	Automatically creates a panorama picture
Miniature Effect	Limits the in-focus zone to a horizontal or vertical strip of the image frame
HDR	Simultaneously ensures optimal exposure of both very bright and very dark subject parts

Please see next page for details on the Panorama, Miniature Effect and HDR modes.

#### Selecting the Scene Mode

- Press the <u>left</u> setting wheel button
- ► Turn the left setting wheel to select S

Approx. 2 s after the last turn of the setting wheel, the selected mode is set automatically.

To set the selected mode immediately:

Press the left setting wheel button or the shutter button

#### Setting Scene Mode Programs

- In the Main Menu (2nd page), select Scene Mode
- Select the required subject program

#### Taking a picture

Same as with the 'normal' program mode

- In all <u>Scene Mode</u>, a range of additional functions are automatically controlled in addition to the shutter speed and aperture.
- The program shift function is not available.
- The both setting wheels have no function in this case.

#### **Panorama pictures**

With this function, Leica CL makes the process of creating panoramic pictures a snap.

#### Setting the function

In the Scene Mode submenu, select Panorama

The monitor image will display:

- a white horizontal line in the center of the picture
- a progression display for the function at the bottom

To switch between landscape or portrait orientation for the panorama:

Press the direction pad up or down

#### Creating a panoramic picture

- Orient the camera so that the planned left edge of the picture is not all the way to the left in the monitor image
- Press the shutter button and hold it down
- Pan the camera steadily in the direction indicated while using the white line to help keep from drifting up or down too much

#### Notes

- If the camera is panned too slowly or too fast, then the camera will stop taking the picture and a corresponding notice will appear.
- The more unsteady the camera is and the more it moves up and down or side to side (depending on picture format), the smaller the height/width of the final panoramic picture will be.
- The maximum pivoting angle amounts to approx. 180°.

Stopping the recording:

- Release the shutter button
- When the shutter button is first pressed down, pictures will automatically be taken quickly in succession.
- After the picture series is completed, the camera will combine the individual pictures into a single picture.

- Regardless of the corresponding menu setting, panoramic pictures are generally stored in the **Lee** file format.
- It is not possible to take panoramic pictures with flash.
- The resolution of a panoramic picture depends on the direction of the picture and number of pictures taken. The maximum resolution is approx. 8176x1920 pixels.
- Focusing, White Balance, and the exposure are fixed based on the optimal settings for the first exposure. Due to this, the final panorama picture may not be optimally focused or exposed if the subject distance or the ambient light change decisively during the exposures.
- Since several exposures are combined to create a panorama picture, certain subject details may be distorted and/or the transition areas may be visible.
- Panorama pictures cannot be created in the following situations:
  - With very slow shutter speeds (longer than 1/60 s)
  - Together with the Interval function

- In the case of the following types of subjects or situations during the exposures, panorama pictures may not be possible, or the transition areas may be faulty:
  - Single-color subjects or those containing a regular pattern throughout (sky, beach, etc.)
  - Moving subjects (persons, pets, vehicles, waves, flowers swaying in the wind, etc.)
  - Subjects with quickly changing colors or patterns (e.g. a TV image)
  - Dark areas
  - Subjects illuminated by flickering light sources (e.g. fluorescent lamps, candles, etc.)

#### Miniature effect

With this function you can select which parts of the image field are shown in focus and, most importantly, which parts are out of focus. You can limit the focused areas to either a horizontal or vertical strip. You can change the width as well as the location of this strip within the image field.

The effect will make the picture look similar to a closeup photo with its characteristically shallow depth of field.

#### Setting the function

▶ In the Scene Mode submenu, select Miniature Effect

The monitor image will display:

- A white rectangle outlining the correctly focused area
- Within the rectangle, the autofocus metering zone
- Arrows centered above and below, or to the left and right to indicate how the rectangle can be shifted
- Left and right above displays indicating how to use the direction pad and one of the setting wheels to change the rectangle Changing the orientation of the rectangle:
- Press left or up 1x on the direction pad while monitoring the indicators (differs depending on starting position)

Changing the location of the rectangle:

 Press up as many times as necessary on the direction pad while monitoring the indicators (differs depending on orientation)

Changing the width of the rectangle:

(Turn a setting wheel to the left = smaller, to the left = smaller

#### HDR

# With $\blacksquare$ a picture is created where, due to the 'overlaying' of three different exposures (-2 EV / 0 EV / +2 EV), light and dark parts of the subject are reproduced better at the same time, i.e. with less overexposure in the highlights and more definition in the darkest areas.

Due to the consecutive exposures, this operating mode is particularly suited for subjects that do not or rarely move, e.g. landscapes. Therefore, and due to the longer shutter speeds especially in lowlight conditions, e.g. in the case of recordings in the evening or at night, using a tripod is recommended.

#### Setting the function

▶ In the Scene Mode submenu, select HDR

#### Taking a HDR picture

- Determine the cropped section
- Press the shutter button all the way down, hold the camera steadily during the three exposures (see above)

#### Aperture priority mode - A

Aperture priority mode sets the exposure automatically according to the manually selected aperture. It is particularly suitable for pictures where the depth of field is a critical compositional element.

By selecting an appropriately low aperture value, you can reduce the depth of field range, for example in a portrait to "release" the face, which is in focus, from an unimportant or distracting background. Conversely you can use a higher aperture value to increase the depth of field range, so that everything from the foreground to the background will be sharp in a landscape shot.

#### Taking a picture

- Select the required aperture value with the <u>right</u> setting wheel
- Press the shutter button to the 1st pressure point Both the set aperture value and the automatically calculated shutter speed are displayed in white. If even the fastest or slowest shutter speed combined with the set aperture will result in under or overexposure, both values are displayed in red.

If the automatically set shutter speed appears appropriate for the intended composition:

Press the shutter button all the way down to take the picture

#### Shutter priority mode - S

Shutter priority mode sets the exposure automatically according to the manually selected shutter speed. It is therefore particularly suitable for pictures of moving subjects, where the sharpness of the movement depicted is a critical compositional element. An appropriately fast shutter speed will avoid undesirable blurring of the movement, i.e. "freeze" your subject or you can use a slower shutter speed to express the dynamic nature of the movement with a deliberate "blur effect".

#### Taking a picture

- Select the required shutter speed value with the <u>left</u> setting wheel
- Press the shutter button to the 1st pressure point Both the set shutter speed and the automatically calculated aperture value are displayed in white.

If even the lowest or highest aperture value combined with the set shutter speed will result in under or overexposure, both values are displayed in red.

If the automatically set aperture value appears to be appropriate for the intended composition:

Press the shutter button all the way down to take the picture

#### Metering memory lock

For composition reasons, it can be beneficial not to have the main subject in the center of the picture.

In that case, the metering memory lock function enables the main subject to be metered first and the relevant settings retained until you have determined your final trimming and take the picture. This is made possible through the exposure modes P, S and A as well as the AF modes field and spot metering.

Taking a picture with this function

- Aim the relevant AF frame at the part of your subject you want to adjust the sharpness and exposure to.
- Press the shutter button to the first pressure point to set and store the sharpness and exposure.
- Continue holding the shutter button half way and move the camera to determine the final trimming.
- Press the shutter button all the way down to take the picture

#### Exposure compensation

Some subjects consist predominantly of areas of above or below average brightness, for example extensive areas of snow or fullformat dark subjects. With the exposure modes **P**, **S** and **A**, it may be more convenient to set an appropriate exposure compensation instead of using the metering memory lock function every time. The same applies if you want to ensure an identical exposure for several pictures. Values of + 3 to - 3 EV are available in 1/3 EV increments.

- ▶ In the Main Menu (1st page), select Exposure Compensation
- Select the desired value

 $\ln \textbf{P}, \textbf{S}$  and A, a correction value can also be directly entered via one of the setting wheels.

If a compensation value is set, it is displayed in the monitor, e.g. by **EV+3**. During setting, you can observe the effect on the monitor image, which gets darker or lighter.

#### Notes

- When setting the exposure manually, exposure compensation is only possible using the menu control, or when the function for direct access is selected (see p. 23)
- A set exposure compensation remains active even after any number of pictures and even after turning off the camera, until it is reset to ± 0 (= center of scale).

#### Automatic bracketing

High contrast subjects that have both very bright and very dark areas can have very different effects depending on exposure. The automatic bracketing function enables you to take a series of three pictures with graduated exposure. You can then select the best picture for further use.

#### Wahl des menu items

- In the Main Menu (1st page), select Drive Mode
- In the submenu, select Exposure Bracketing

If bracketing is set, this is indicated by 🕮 in the monitor. During the exposures, the darker or brighter monitor image illustrates the effect.

At least two parameters must be determined for a bracketing series:

- Number of pictures
- Exposure graduation (in 1 EV = Exposure value steps)

Selecting the number of pictures

- In the Exposure Bracketing submenu, select Frames
- Select 3 or 5

Setting the exposure graduation

- In the Exposure Bracketing submenu, select Aperture / EV Steps
- Select the desired setting

Two further settings are optionally available:

- 'Shifting' the complete bracketing series in the direction of under- or overexposure

The complete bracketing series is based on the set exposure compensation. This allows you to produce more or even only alternatives with higher or lower exposures.

- Release method for the series

#### Setting an exposure compensation value

- In the Exposure Bracketing Submenu, select Exposure Compensation
- Select the desired setting

#### Setting the release method

- ▶ In the Exposure Bracketing submenu, select Automatic
- Select the desired setting

In default setting- Im - the complete series ist started by pressing the shutter button once, with III every single exposure must be released separately.

#### Notes

- Depending on the exposure mode, the graduations are produced by changing the shutter speed (P/A/M) or the aperture (S).
- The sequence of the pictures: correct exposure/underexposure/overexposure
- Depending on the available shutter speed/aperture combination, the working range for automatic bracketing may be limited.
- Once set, bracketing remains active even after any number of releases and even after turning off the camera, i.e. until it is reset to ± (1) (= center of scale).

#### Manual setting - M

If, for example, you want to achieve a particular effect that is only possible with a very specific exposure, or if you want to ensure that several pictures with different cropped section have an absolutely identical exposure, then you can set the shutter speed and aperture manually.

Taking a picture

- Select the required aperture value with the <u>right</u> setting wheel
- Select the required shutter speed value with the <u>left</u> setting wheel

Press the shutter button to the 1st pressure point
 The shutter speed and aperture are displayed in white.
 The light balance scale also appears. It covers a range of ± 3 EV (exposure value) in 1/3 EV increments.
 Settings within ± 3 EV are indicated by white lines on the scale, settings outside this range by red lines.

 Adjust the settings for correct exposure so that the central mark is displayed in white.

If the set values and/or the exposure appears to be appropriate for the intended composition:

Press the shutter button all the way down to take the picture

#### Note

When P-A-S-M is selected in the Exposure Preview menu, the monitor image will show an exposure simulation.

# ADDITIONAL FUNCTIONS

#### Interval shooting

Leica CL makes it possible to automatically take pictures of motion sequences over a long period of time in the form of picture series. In order to do this, you must define the number of pictures, the intervals between pictures, and the start time of the series.

#### Setting the function

- ▶ In the Main Menu (1st page), select Drive Mode
- In the submenu Interval wählen
- In the Interval Submenu Number of Frames wählen
- In the associated keypad-submenu, select the desired number of pictures (from 1 to a maximum of 9999)



- 1 Edit line
- 2 Numeric pad
- 3 Delete "button" (for deletion of the respective last character)
- Back "button" (for returning to the <u>Interval</u> submenu level without confirming any settings)
- 5 Confirmation "button" (for finished settings)

The keypad can be operated in various ways.

Using gesture control

Touch the desired value or corresponding "button"

#### Using physical controls

To go left or right (incl. changing lines, endless loop):

 Press the right or left side of the direction pad, or turn the right setting wheel

To go up or down (only within the same column):

Press the direction pad up or down

To set a selected figure:

Press the center button

To confirm a finished setting:

- Select the confirm ,button'
- Press the center button

#### Note

When calling up the keypad-submenu, the setting process is always newly started, i.e. possible previous settings are overwritten.

- In the submenu, select Interval or Countdown
- Enter the desired times (in both cases from 1 s to a maximum of 59 h 59 min 59 s)

To switch between the setting options:

Press the right or left side of the direction pad

To set the options:

> Press the direction pad up/down, or turn the right setting wheel

#### Creating an interval picture series

The exposure and focusing settings are no different from those of normal pictures, but it should be taken into account that the lighting conditions may change during the course of the picture series.

The time until the first picture and the number of pictures are shown in the upper right corner of the monitor image.

To start a Time lapse series:

Press the shutter button

The remaining number of pictures will be displayed briefly between the pictures and a corresponding message will be displayed after the series has been completed.

#### Notes

- If the camera is set to automatically turn off and no operations are carried out, it may shut off between the individual pictures and then turn on again.
- Time lapse photography carried out over a longer period of time at a cold location or in a place with high temperatures and humidity may result in malfunctioning.
- Use a sufficiently charged battery.
- The taking of time lapse pictures will be interrupted or stopped in the following situations:
  - if the battery loses its charge
  - if the camera is turned off
  - You can continue your interval shooting if you change the battery or the memory card of switched-off camera, and then switch the camera back on. The pictures that are taken after this will be saved in their own group.
- The function remains active after being used once, and also after switching the camera off and back on. If you would like to take normal pictures again, you must select the desired function in the **Drive Mode** submenu.

Therefore, a corresponding request appears on the screen when the camera is switched off and on again while the interval function is activated.

- This function does not make the camera suitable for use as a monitoring device.

#### Self-Timer

You can use the self-timer to take a picture with a delay of either 2 or 12 s. This is particularly useful for group photographs, when you wish to also be included in the picture or if you want to avoid blurring.

- ▶ In the Main Menu (1st page), select Self Timer
- Select the desired settings

If the self-timer is turned on  $\mathbf{\hat{\mathbf{v}}}$  or  $\mathbf{\hat{\mathbf{v}}}$  is displayed.

#### **Operation:**

- Press the shutter button all the way down to take the picture
  - The progress is indicated by the flashing self timer LED:
    - 12 s delay time: slowly at first, faster for the last 2 s
    - 2 s delay time: fast flashing
  - The remaining time is counted down in the monitor.

- A delay time in progress can be restarted at any time by pressing the shutter button again. The only way to cancel a delay time in progress though is to turn off the camera.
- It is only ever possible to take single pictures when the self-timer is active, i.e. picture series and automatic bracketing cannot be combined with self-timer mode.
- In self-timer mode, the focus and exposure are not set when the shutter button reaches its pressure point, but immediately before the picture is taken.
- The self-timer function remains active until it is deactivated again in the menu, or the camera is deactivated.

## FLASH PHOTOGRAPHY

#### COMPATIBLE FLASH UNITS

Units The following flash units enable TTL flash metering and, depending on their feature set, a varying number of the functions described in this manual.

- Leica system flash units SF 40, SF 64, and SF 58.
- Other Leica system flash units, except the Leica SF 20.

Other commercially available flash units with a standard flash foot and positive center contact<sup>1</sup> (fired by the center / X contact) can also be used, as well as studio flash units connected to the central contact by means of adapter and sync cord.

We recommend the use of modern thyristor-controlled electronic flashunits.

#### ATTACHING A FLASH UNIT

- Turn off the camera and flash unit
- Slide back the cover that protects the accessory shoe on the camera when not in use.
- Slide the foot of the flash unit all the way into the accessory shoe and if present, use the locknut to secure it and keep it from falling out. This is important because changes of position in the accessory shoe can break the required contacts, causing malfunctions.

If flash devices are to be used, which are not specially designed for the camera and which therefore do not automatically adjust the white balance of the camera, the setting **fresh** should be used.

The flash unit should be set to **TTL** mode to allow automatic control by the camera.

When set to  $\boldsymbol{\mathsf{A}},$  above- or below-average brightness subjects may not be exposed correctly.

When set to  $\mathbf{M}$ , the flash exposure must be controlled by manually setting a flash output level appropriate for the aperture and shutter speed settings determined by the camera.

The display for the set flash mode appears in white (see next pages). The flash mode will blink red if the flash unit is not fully charged and therefore not ready.

The camera determines the necessary flash power by firing one or more ranging flashes, fractions of a second before taking the actual picture.

Immediately afterwards, i.e. during the exposure, the main flash is fired.

All parameters that influende the exposure (e.g. filters, chaged aperture settings) are automatically taken into account.

#### Notes

- The flash unit must be ready to flash, otherwise faulty exposures may result and the camera may generate an error message.
- Serial exposures and automatic bracketing with flash are not available. In these cases, even if a flash unit is attached and switched on, a flash mode display will not appear and no flash will be fired.
- Simultaneous use of a flash unit and the Leica Visoflex electronic viewfinder is not possible.

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#### FLASH MODES

#### 4 Automatic flash activation

This is the default mode. An attached and switched on flash unit is fired automatically whenever slower shutter speeds could lead to blurred pictures in poor lighting conditions.

#### 4 Manual flash activation

This mode is suitable for backlit pictures in which your main subject does not fill the entire frame and is in shadow, or in situations in which you want to moderate high contrasts (e.g. in direct sunlight) with a fill in flash. As long as this mode is activated, an attached and switched on flash unit will fire each time you take a shot, whatever the prevailing lighting conditions. The flash power depends on the metered ambient brightness: in poor light it is the same as in automatic mode, with a reduced power as the brightness increases. The flash then works as a fill-in light, e.g. to light up dark shadows in the foreground or backlit subjects and in order to create more balanced overall lighting.

### ${\bf J} {f \Theta}$ Automatic flash activation with slower shutter speeds

This mode creates simultaneous and more appropriate, i.e. brighter rendition of dark backgrounds as well as a fill-in flash for the foreground. Explanation: To minimize the risk of blurring, the shutter speed is not extended beyond 1/30 s in the other flash modes. This is why in flash shots, objects in the background not illuminated by the flash are often badly underexposed. To take adequate account of the available ambient light, the slower shutter speeds required in such situations (up to 30 s) are allowed in this mode. Selecting the mode:

- In the Main Menu (2nd page), select Flash Settings
- Select Flash Mode in the submenu
- Select the desired setting

If the function is assigned to the left setting wheel, it can be used to directly select the required option.

The set mode is displayed in the monitor.

- If no system compatible flash unit is attached, this setting is not available and the function grayed out.
- Depending on the Auto ISD Settings, (see p. 33) it is possible that the camera will not support slower shutter speeds as in such cases increasing the ISO sensitivity takes priority.
- The Maximum Exposure Time setting (see p. 33) can be used if required.
- To prevent blurred pictures with the slower shutter speeds, you should hold the camera steady, i.e. rest it on something or use a tripod. Alternatively, you can select a higher sensitivity.

#### FLASH RANGE

The usable flash range depends on the aperture and sensitivity values set manually or calculated by the camera. To ensure that the flash light provides sufficient illumination, it is essential that the main subject is within the relevant flash range.

#### SYNCHRONIZATION TIME POINT

Flash photographs are always illuminated by two light sources, the available light and the light from the flash. The time at which the flash is fired normally determines where the parts of the subject illuminated exclusively or predominantly by the flash are shown in the frame. The conventional flash firing point at the beginning of the exposure **Start of Expl** can lead to apparent contradictions, e.g. a vehicle being "overtaken" by the light trail from its own tail lights. Your Leica CL allows you to choose between this conventional flash firing point and the end of the exposure **End of Expl**:

- In the Main Menu (2nd page), select Flash Settings
- ▶ Select Flash Sync in the submenu
- Select the desired setting

In the example cited, the light trail from the tail lights then follows the vehicle as expected. This flash technique gives a more natural impression of movement and dynamics.

#### Note

When using the flash with faster shutter speeds, in terms of the image there is no difference, or only a difference for rapid movements, between the two flash firing points.

#### FLASH EXPOSURE COMPENSATION

This function can be used to selectively reduce or strengthen the flash exposure regardless of the exposure from available light, e.g. in a picture taken in the evening, to lighten the face of a person in the foreground while retaining the lighting atmosphere.

- In the Main Menu (2nd page), select Flash Settings
- Select Flash Exp. Compensation in the submenu
- Select the desired setting

- Flash exposure compensation changes the range of the flash unit.
- Once set, compensation remains active even after any number of pictures and even after turning off the camera, until it is reset to ± (i) (= center of scale).
- Compensation values set in the camera's menu system are not effective as soon as one is set on an attached and accordingly featured flash unit such as the Leica SF 64.

# VIDEO RECORDING

You can also use the Leica CL to make video recordings. Switching between picture preview mode and video playback mode is possible in two ways:

#### Using gesture control



Using physical controls

- Press the left setting wheel button
- Turn the <u>left</u> setting wheel to select

Approx. 2 s after the last turn of the setting wheel, the selected mode is set automatically.

To set the selected mode immediately:

Press the left setting wheel button or the shutter button

#### Notes

- As only part of the sensor surface is used during video recording, the effective focal length is increased in each case, i.e. the field of view becomes correspondingly smaller.
- Uninterrupted video recordings are possible up to a maximum length of 29 minutes. The maximum file size is 4 GB. If a recording exceeds this limit, the respective part is automatically stored in another file.

#### Starting/ending the recording

Starting:

Press the shutter button

A video recording in progress is indicated by a flashing red dot. The remaining recording time is also displayed.

#### Ending:

Press the shutter button again

For video recordings, the following functions are available:

#### Resolution

Three resolution levels are available in one case optionally with two different frame rates:

<mark>4 К / 30 fps</mark>	(3840 x 2160 pixels)
Full HD / 60 fps	(1920 x 1080 pixels) – Factory setting–
Full HD / 30 fps	(1920 x 1080 pixels)
HD / 30 fps	(1280 x 720 pixels)

- In the Main Menu (3rd page), select Video Resolution
- Select the desired setting

#### **ISO** sensitivity

All settings available in the menu.

#### Focusing

All options described on pages 38-43.

#### Exposure metering methods

All options described on page 45

#### Exposure control

This is totally independent of the exposure mode and the shutter speed and aperture settings made for photos.

- Shutter speed:: according to selected Video Resolution
- Aperture: Automatic
- If correct exposure is not possible even with the maximum aperture, the ISO sensitivity is automatically increased - regardless of any manual setting.

#### Note

The automatic exposure control takes all brightness fluctuations into consideration. If you do not want this, e.g. for landscape pictures and pan shots, you should set the shutter speed manually.

#### Color reproduction and image properties

As described for photos on page 34/41, you can also decide between different colour reproduction variants for video. In addition to this, you can change the contrast, saturation and sharpness.

In the Main Menu (3rd page), select Video Style

The further settings are performed exactly as described on p.  $40/41. \label{eq:40}$ 

#### Note

The fixed basic settings are different than those under the menu item  $\ensuremath{\mathsf{Fim}}\xspace{\mathsf{Style}}$ 

#### Recording level, wind noise damping, stabilization

Under the menu point Video Settings, there are three further settings.

With  $\underline{\text{Microphone Gain}},$  you can set the recording guage of the in-built microphone according to the external conditions.

To lower the noises made by wind, there is a muting function under Wind elimination.

With the setting  $\underline{\mbox{Video Stabil}},$  you can counter the effects of unstable hands.

- In the Main Menu (3rd page), select Video Settings
- Im Untermenü gewünschte Funktion wählen
- In the respective submenus, select the desired gain level, or switch the function on or off

- When using video stabilization, the trimming is slightly reduced compared to operation without stabilization.
- Sound is recorded in stereo with the built-in microphones.
- Both autofocus and changing the focal length on zoom lenses produce noises that may be picked up in the recording.
   To prevent this, you should not use either of these two functions while a recording is in progress - only adjust the focus manually and do not change the focal length.

# **REVIEW MODE**

### REVIEW

Switching between picture and continuous review modes can be performed in two ways.

#### Using gesture control



Using physical controls

- Press the PLAY button
  - (1x = review mode, 2x = back to picture mode)

- Portrait-format pictures are played back as shot, i.e. the complete monitor area is always utilized.
- You can switch back from review mode to picture mode at any time by tapping the shutter button.
- If there is no data on the memory card, the message No valid picture to play, appears.
- If you have used the picture series function or automatic bracketing, the last or last saved picture in the series is displayed first - if not all pictures in the series have been overwritten by the camera's internal back-up memory yet.
- It may not be possible to view files that were not created on this camera. In such cases, the monitor image will remain black and only display the file name.

# Review mode

#### Automatic review

With the Auto Review function, you can view every photo/video immediately:

- In the Main Menu (3rd page), select Auto Review
- Select the required function or duration

#### Note

As long as you keep the button held down after taking a photo, the photo that was just taken will be shown, including when  $\mathbf{M}$ ,  $\mathbf{E}$ ,  $\mathbf{E}$ , or  $\mathbf{E}$  are used as settings.

#### SELECTING/SCROLLING THROUGH RECORDINGS

#### Using gesture control



Using physical controls

 Turn the left setting wheel or press the right or left side of the direction pad

- Swiping right (gesture), turning the setting wheel or pressing the direction pad leads to images of higher number; the corresponding commands to the left to the ones of smaller number.
- In each case, the pictures are displayed in an endless loop.
  When the last picture is reached, the first one is displayed again.

# ENLARGING PICTURES/SIMULTANEOUS DISPLAY OF SEVERAL PICTURES

Being able to enlarge a picture being reviewed makes it possible to get a better idea of how in focus it is.

#### Magnification

Using gesture control



#### Using physical controls

Step by step:

Turn the right setting wheel to the right, four click-stops = four magnification levels up to the maximum enlargement

Calling up the third magnification directly:

 Press the right setting wheel button (back to normal size: press again)

- Enlarging the picture step by step is only possible in the normal view. Hence, it is not possible when the third enlargement is called up via button.
- At the maximum enlargement, one picture pixel equals one monitor pixel.
- Pressing the corresponding spot on the monitor determines which part of the picture is enlarged.

#### Simultaneous display of 12/30 pictures

Displaying a number of smaller pictures enables you to get an overall idea of what is there or to find a specific picture more quickly.

Using gesture control



Using physical controls

Turn right setting wheel to the left; one click-stop past normal size = 12 picture display, two click-stop = 30 picture display

The last picture to be shown at its normal size is marked by a red frame.

#### Notes

- Enlarging cannot be performed on videos.
- When using an enlarged or reduced view, the display with additional information cannot be opened.
- It may not be possible to enlarge pictures taken by other camera types.

Selecting reduced pictures

 Press the corresponding side of the direction pad to select the desired picture

The selected picture is indicated by a red frame.

Exiting reduced picture view

#### Using gesture control



Using physical controls

 Turn right setting wheel to the right, one click-stop past 30 picture display = 12 picture display, two = normal size

For returning to normal size directly:

Press the center or right setting wheel button

#### SELECTING AN IMAGE DETAIL

In an enlarged picture, you can move the enlarged section away from the center, e.g. to check reproduction of subject details outside the center.

#### Using gesture control



Using physical controls

 Press the direction pad on the side corresponding to the intended shift direction

The approximate position of the section in the picture is indicated by the rectangle inside the box..

#### MARKING PICTURES/CANCELING MARKINGS

You can mark any picture, e.g. in order to find it again more quickly, or to protect it from accidental deletion:

Press the left setting wheel button

After pressing the left setting wheel button for the first time,  $\bigstar$  appears in the right upper corner of the monitor image in order to indicate a marked picture.  $\bigstar$  disappears again after pressing it a second time.

#### **REVIEW MENU**

The review menu contains the five functions Delete, Delete Unrated, Delete All, Slideshow and WLAN. Please see next pages for details on the first four functions. The WLAN submenu is the same which can be called up using the Main Menu. For details on the WLAN settings, see p. 80.

#### Calling up the Review menu

Press the MENU button The review menu appears



#### Selecting /calling up menu items

Using gesture control

- Tap the desired function line
- Using physical controls
- Turn one of the setting wheels or press up/down on the direction pad
- Press the center button

#### Exit review menu

 Press the MENU button again, or press the PLAY button indicated by <sup>1</sup>, or press the left side of the direction pad

#### **Deleting Pictures**

Pictures saved to the memory card can be deleted at any time, either individually - Delete, or all unmarked ones at once - Delete Unrated, or all at once - Delete All.

#### **Deleting single pictures**

After selecting **Delete** the following screen appears:



#### Note

This screen can also be called up directly:

Press the FN button

Using gesture control

- Press the FN button again (indicated by ū) and touch ū
  Using physical controls
- ▶ Press the FN button again (indicated by ੴ)

#### Notes

- Even when the delete menu is open, scrolling between pictures and enlarging them is possible at any time.
- After having deleted a picture, the next picture appears, or No valid picture to play, after having deleted the last picture.

#### Deleting all unmarked / all pictures

After having selected Delete Unrated or Delete All, a relevant screen appears (see example of Delete Unrated):



# Using gesture control

TouchYes or No

Using physical controls

- Turn the right setting wheel, or press left/right side on the direction pad in order to select Yes or No
- Press the center button

#### Note

After having deleted a picture successfully, the corresponding message No valid picture to play appears. If the deletion was not carried out successfully, the original picture is displayed again. When deleting multiple or all pictures, a corresponding information screen may appear due to the time required to process the data.

#### Important

Deleting pictures is irreversible. Pictures cannot subsequently be recovered.

#### Automatic review

On the Leica CL you can choose a setting in order to show the pictures in a sequence automatically. Within this <u>Sideshow</u> function, you can decide if you would like all recordings to be shown (Play All), only photos (<u>Pictures only</u>), or only videos (<u>Videos only</u>). Furthermore, you can decide for how long the recordings will be shown (<u>Duration</u>). After having selected <u>Sideshow</u>, the following monitor appears:



#### Setting the duration

#### Using gesture control

- Duration
- ► Tap the desired playback time

#### Using physical controls

- Turn the right setting wheel, or press up/down on the direction pad in order to select <u>Buration</u>
- Press the center button in order to call up the Duration submenu
- Turn the right setting wheel, or press up/down on the direction pad in order to select the desired setting
- Press the center button to confirm your setting

Following that, the Slideshow

#### Note

Your settings in **Duration** are retained even when you turn the camera off and back on.
# Review mode

# Starting playback

Using gesture control

Select desired mode, i. e.Play All, Pictures only, Or Videos only

Using physical controls

- Turn the right setting wheel, or press up/down on the direction pad in order to select the desired setting
- Press the center button

An intermediate screen appears briefly during data processing, i.e. until playback begins.

After that, the slide show will run in an endless loop until you turn it off.

Ending playback

Press the PLAY button or shutter button

The camera switches to the respective mode.

# Video playback

If a video recording is selected in playback mode,  $\ensuremath{\mathbb{PLAY}}$  appears on the monitor.

Starting playback

# Using gesture control



Using physical controls

Press the center button

# Calling up the video and audio control symbols Using gesture control







1 Elapsed time

2 Scroll bar with contact area

3 Break

4 Volume

5 Shorten video

6 Back to beginning of video

Using physical controls

Press the center button

### Notes

- Calling up the symbols stops playback.
- The symbols disappear after approx. 3 s.

# Continuing playback from a particular point



# Pausing playback

Using gesture control



Using physical controls

Press the center button

# Ending playback

Using gesture control



Using physical controls

Press the PLAY button or the center button

# Adjusting the volume

Using gesture control



Using physical controls

Press the direction pad up or down

The volume bar appears.

Press the direction pad up (louder) or down (quieter)

# Note

The sound is muted at the lowest position of the bar and the volume symbol will switch to  $\clubsuit$ .

# Cutting video recordings

J.

### Using gesture control



## Using physical controls

Press the FN button

The video-trimming screen appears, the left cutting mark is highlighted in red (=active)

Switching and moving cutting points

Switching (only possible in the two extreme positions)

- From the beginning (left) to the end (right):
- Turn right setting wheel one click-stop to the right
- From the end (right) to the beginning (left):
- Turn left setting wheel one click-stop to the left

The selected cutting point is highlighted in red (=active)

Moving:

Left cutting point using the left setting wheel, right cutting point using the right setting wheel

During the operation, both the respective time points and a still shot of the selected start and end points are displayed

Press the FNbutton to confirm your cuts

The video-trimming submenu appears.

## Note

To exit the video screen without executing the set cuts:

Press the PLAY button

The initial video playback screen reappears.

When executing set cuts, the operation continues by selecting one of the three options in the submenu. The procedure is identical in each case:

Save as new

The new video is <u>additionally</u> saved which means the original is also retained.

Overwrite

The newly cut video is saved and the original one is deleted.

Preview

The new video is shown. It is neither saved nor is the original deleted.

In all three cases, a corresponding information screen initially appears due to the time required to process the data. This is followed by the initial scene of the new video.

# **MISCELLANEOUS**

# USER PROFILES

On the Leica CL, any combination of menu settings can be saved permanently, e.g. so that they can be retrieved quickly and easily at any time for recurring situations/subjects. A total of seven memory slots are available for these combinations. Of course, you can reset all menu options to the factory default settings **Default Profile**):

# **Creating profiles**

- Set the desired functions in the menu.
- ▶ In the Main Menu (3rd page), select User Profile
- In the User Profile submenu, select Manage Profiles
- In the Manage Profiles Submenu, select Save as Profile
- Select the desired profile slot

# Applying profiles

In the User Profile submenu, select desired storage location for your profile or Default Profile

# Notes

- Default Profile you can access the factory settings at any time even if other menu settings have been saved in one or more of the three profile slots.
- Unlike the Reset Camerafunction explained in the section "Resetting all custom settings", your settings for time, date and language are <u>not</u> reset with Default Profile.

# **Renaming profiles**

- In the Manage Profiles submenu, select Rename Profiles
- Select the desired profile slot
- In the corresponding keypad submenu, enter the desired characters for the new name



- "Back" button (for returning to the previous menu level without confirming any settings)
- 2 Edit line
- 3 Keypad
- 4 Delete "button" (for deletion of the respective last character)
- G "Confirmation" button (for both individual characters as well as the finished settings)
- 6 Change the character type
- 7 Shift key

The keypad can be operated in various ways.

Using gesture control

Touch the desired value or the respective "button"

# Using physical controls

To go left or right:

 Press the right or left side of the direction pad, or turn the right setting wheel

To go up or down:

Press the direction pad up or down

To confirm a value or setting:

Press the center button

# Transferring profiles from/to a card

You can either copy the profile slots to the memory card, or, viceversa, from a memory card to the camera. Both procedures are performed in principally the same way:

- In the User Profile submenu, select Manage Profiles
- In the submenu, select Export Profiles Or Import Profiles
- ► Confirm exporting/importing (Yes) or decline (No)

# Note

When exporting, <u>all</u> profile slots are transferred to the card, i.e. including any possibly empty profiles. As a result, when importing profiles any existing profiles in the camera will be overwritten, i.e. deleted.

# RESETTING ALL INDIVIDUAL SETTINGS

This function allows you to reset all custom settings previously made in the menu at once and restore the factory default, if so desired with the exception of the user profiles, the WiFi settings and/or the reset of the image numbers:

- In the Main Menu (5th page), select Reset Camera
- ► Confirm deletion of profile settings (Yes) or decline (No) and/or
- $\blacktriangleright$  Confirm deletion of Wi-Fi isettings (Yes) or decline (No) and/or
- Confirm resetting the image numbers (Yes) or decline (No)

## Notes

- Resetting image file numbers can also be performed separately under the menu item Reset image Numbering
- This reset also applies to the settings for Date & Time and Language. The next time the camera is turned on, the welcome video is played again. For details of what to do next, refer to the "Menu language" (p. 26) and "Date / Time" (p. 26).

The Leica CL saves picture files with ascending numbers and stores them in automatically created folders. The names of the picture files are therefore made up of eight characters, "I" for the (Leica) camera, three figures for the folder, and four figures for the picture, e.g., "L1001234". You can reset this numbering at any time:

- In the Main Menu (4th page), select Reset Image Numbering
- Confirm (Yes) or decline (No)

When you reset the numbering, or if the current folder contains the picture file number 9999, a new folder is automatically created and the numbering starts over. Example: Last picture before reset "Loogoog", first picture afterwards "Loogoog". For example, you can use this to sort your picture files more clearly.

The next available number is always used as the folder number, and a maximum of 999 folders are possible.

If the number capacity is reached at "L99999999", a corresponding warning message appears in the monitor and the numbering has to be reset.

# Notes

- If the memory card used already contains a picture file with a higher number than the last number assigned by the camera, the numbers are incremented according to the numbering on the card.
- To reset the folder number to 100, format the memory card and reset the picture number immediately afterwards.

# CHANGING FILE NAMES

You can replace the first letter of a picture file name with any other letter.

- In the Main Menu (4th page), select Edit File Name
- ► Enter the desired letter in the corresponding keypad submenu.

Generally, this is done in exactly the same way as renaming a profile (see p. 76).

# WIRELESS DATA TRANSMISSION AND REMOTE CONTROL OF THE CAMERA USING A WLAN CONNECTION

You can control your Leica CL remotely using a smartphone/tablet or use the smartphone/tablet as an external storage medium. In order to do this, the Leica CL app must first be installed on your smartphone. This app is available in the Google Play Store<sup>™</sup> for Android<sup>™</sup> devices as well as the Apple App Store<sup>™</sup> for iOS<sup>™</sup> devices.

### Note

In this section, the term "smartphone" refers to smartphones as well as tablets.

### Wlan function options

The first WLAN setting to be made is whether you wish to connect to the camera with a smartphone directly - <u>Connect to App</u> or with the help of a browser - <u>Web Server</u>. By using the function <u>Backup</u>, the camera stays connected permanently or connects automatically with your smartphone once it is switched on. <u>Off</u> switches off the WLAN function. The connections allow remote controlled shooting as well as viewing the recordings and also saving them to the smartphone. In the case of a connection through a browser, you can even save in DNG format.

- ▶ In the Main Menu (4th page), select WLAN
- ▶ In the submenu, select Function
- Select the desired setting

### Note

Two types of connection to a smartphone are available (see 'Selecting the connection method').

Further operation with the variant Connect to App

- Establish a connection with a smartphone
- Select "Camera Control" in the Leica CL app
- Take the picture

The pictures taken are stored in the camera. The most important settings are available in the Leica CL app.

# Further operation with the variant Web Server

When Web Server is selected in the Connection submenu, an information screen appears, containing the necessary data for the connection.

To establish a connection between your computer or smartphone and the camera within the same WLAN network, open an internet browser and type in the URL displayed by the camera.

## Selecting the connection method

There are two ways to establish a connection between your camera and your smartphone. If you have access to a WLAN network, the Join WLAN method is recommended. When using this method, both camera and smartphone are in the same WLAN network. Establishing a connection with Create WLAN is especially useful when there is no WLAN available: When using this method, the camera generates an access point (hot spot) where your smartphone can register.

- ▶ In the Main Menu (4th page), select WLAN
- ▶ In the submenu, select Connection
- Select Create WLAN Or Join WLAN

Further operation differes depending on which function you chose:

# Join WLAN

If you wish to connect to a WLAN, you can select it from a list of available WLAN networks.

- ▶ In the Main Menu (4th page), select WLAN
- ▶ In the submenu, select Setup
- Select the desired setting

An intermediate screen appears briefly while searching for the available networks.

Then, the respective submenu is shown. It contains the menu items Scen and Add Network, and lists the networks the camera has found.

Establishing a connection with a smartphone in the Greater

Select the desired network from the list.

If the network you wish to connect to is not listed, you can repeat the search by selecting Scan.

Establishing a connection with an invisible WLAN network

- Add Network
- In the corresponding submenu, enter the SSID/Network Name as well as the encryption method (<u>Client Security</u>)

### Create WLAN

All of the settings under this menu item are preset at the factory. If you wish to change these settings for a specific reason:

- In the Main Menu (4th page), select WLAN
- In the submenu, select Setup
- Select SSID/Network Name, Security or Password
- In the SSID/Network Name keypad submenu, you can change the name of the camera within the network.
- Change the password in the keypad submenu Password if necessary.

The procedure in both keypad submenus is exactly the same as the descriptions in the 'Renaming profiles' section on p. 76.

In the Security submenu it is recommended to retain the preset WPA2 encryption method. Only use the variant Upen if you are sure that no unauthorized access is possible. Establishing a connection with a smartphone in  $\ensuremath{\mbox{\tt create WLAN}}$  mode

Establishing a connection with QR code:



Using an iOS smartphones (with operating systems up to iOS 8.3)

- ▶ Launch the Leica CL app on your smartphone
- Select "Connect by QR Code"
- Import the QR code shown on the camera using the Leica CL app
- ▶ Install the "Leica CL" profile on your smartphone
- First select "Install", then "Install", and then "Done"

A message will appear in the web browser on the smartphone. If a password is needed to unlock the smartphone:

- Enter access data
- Click the "home button" to close the web browser
- ▶ Select and activate "Wi-Fi" under "Settings" on the smartphone
- Select the SSID displayed by the camera (default setting: Leica CL)
- Return to the smartphone's "home" screen
- Launch the LLeica CL app on your smartphone.

### Note

Subject to changes in subsequent versions of the operating system.

Bei Using an Android Smartphones.

- ▶ Launch the Leica CL app on your smartphone.
- ► Select "Connect by QR Code"
- Import the QR code shown on the camera using the Leica CL app

The following steps are the same with both types of smarphone. Establishing a connection with SSID and Passwort:

- Launch the Leica CL app on your smartphone
- Select "WLAN"
- Select the SSID displayed by the camera
- Enter the password shown on this device (only when connection is established for the first time)

# Notes

- When using devices or computing systems that require more reliable security than WLAN devices, appropriate measures must be taken to ensure security and protection against disruptions to the systems used.
- Leica Camera AG accepts no liability for damage arising from the use of the camera for purposes other than as a WLAN device.
- It is assumed that the Wifi function will be used in the countries where this camera is sold. If used in other countries than the one where the camera is sold, there is the risk that communications transmission conditions may be violated. Leica Camera AG assumes no responsibility for violations of this kind.
- Please also notice that data transmitted and received wirelessly may be intercepted by third parties. We highly recommend that you activate encryption in the wireless access point settings in order to ensure that the information is secure.
- Do not use the camera in places where there are magnetic fields, static electricity, or interferences such as near micro-waves. Otherwise the wireless transmissions may not reach the camera.
- Using the camera near devices such as microwaves or cordless telephones that use the 2.4 GHz radio frequency wavelength may negatively affect the performance of both devices.

- Do not connect to wireless networks you are not authorized to use.
- If the WLAN function is activated, the device will automatically search for wireless networks. When this happens, networks that you are not authorized to use may be displayed as well. Do not attempt to connect to such a network, since this would be seen as unauthorized access.

# TRANSFERRING DATA TO A COMPUTER

The picture data on a memory card can be transferred to a computer with a card reader for SD-/SDHC/SDXC cards.

# DATA STRUCTURE ON THE MEMORY CARD

When the data stored on a card is transferred to a computer, it is stored in folders with the names 100LEICA, 101LEICA, etc.: These folders can each hold up to 9999 pictures.

# FORMATTING

It is normally not necessary to format cards that have already been inserted. However, if a card that has yet to be formatted is inserted for the first time, it must be formatted. In such cases, the corresponding confirmation prompt appears automatically.

It is recommended that the internal memory and memory cards be reformatted occasionally, as a certain amount of residual data (info accompanying pictures) can take up memory capacity.

- Select in the Main Menu (4th page)Format
- ► Confirm (Yes) or decline (No)

# Notes

- When formatting the memory card, all data on it is irretrievably lost.
- We therefore recommend that you make habit of transferring all your pictures to a secure mass storage medium, e.g. the hard drive on your computer, as soon as possible.
- Do not turn off the camera while the operation is in progress.
- If the memory card has been formatted in another device, such as a computer, you should reformat it again in the camera.
- If the memory card cannot be formatted, you should ask your dealer or the Leica Product Support for advice.
- Files on the card marked with delete protection will <u>not</u> similarly be lost in formating.

# USING RAW DATA (DNG)

You will need the right software if you want to edit data in DNG format, e.g. the professional raw data converter Adobe® Photoshop® Lightroom®. The software allows you to convert stored raw data in excellent quality and also offers quality optimized algorithms for digital color processing which create very low noise results coupled with astonishingly high resolution. During editing, you can adjust parameters like gradation, sharpness

etc. to achieve the best possible image quality.

# INSTALLING FIRMWARE UPDATES

Leica is constantly working on developing and optimizing its products. As digital cameras have many functions that are purely controlled electronically, some of these improvements and enhancements to the functions can be installed on the camera at a later date. For this purpose, Leica offers firmware updates at irregular intervals that are made available to you on our website for download.

Once you have registered your camera, Leica will notify you of all new updates.

To identify which firmware version is installed:

- In the Main Menu (5th page), select Camera Information
- In the submenu, select Firmware

The current firmware number on the camera is displayed in the first line of the submenu.

Further information on registration, on firmware updates for your camera and the update procedure and on any changes or additions to the details in this manual can be found on our website under "Customer Service" at https://owners.leica-camera.com

# Notes

- If the battery is not charged sufficiently, the warning message Battery low appears. In this case, first charge the battery and then repeat the process described above.
- Observe all the instructions concerning putting the camera into operation again.
- In the Camera Information submenu, you will find additional deviceand country-specific approval symbols and numbers.
- Installing a firmware update puts the camera in a state of the factory settings whifirmware updates ch means all of your settings will be reset.

# Camera

- Only clean the camera 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 marks and fingerprints, wipe the camera with a clean lint-free cloth. Tougher dirt in hard to reach corners of the camera body can be removed with a small brush.
- All mechanically operated bearings and sliding surfaces on your camera are lubricated. Please keep in mind if you do not use your camera for a longer period of time: To prevent the lubrication points becoming gummed up, the camera shutter should be operated several times every three months. We also recommend repeated adjustment and use of the setting wheels.

### Lens

- 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 spectacles exthat contain chemicals should not be used as they can damage the lens glass.
- The lens hood supplied also protects the lens from unintentional fingerprints and the rain.

# Battery

Rechargeable lithium-ion batteries generate power through internal chemical reactions. This reaction is influenced by ambient 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 camera for a long period of time, As otherwise it could become totally discharged after several weeks, i.e. its voltage drops to a very low level.
- Lithium-ion batteries should only be stored partly charged, i.e. not when fully discharged or fully charged. For very long storage periods, the battery should be charged for approx. 15 minutes twice a year to prevent total discharge. Always keep the battery contacts clean and readily accessible. Whilst lithium-ion batteries are secured against short circuits, they should still be protected against contact with metal objects like paper clips or jewelry. A short-circuited battery can get very hot and cause severe burns.
- In order to charge the battery, it must have a temperature of between 0°C and 35°C / 32°F and 95°F (otherwise the charger may not turn on or off again).
- If a battery is dropped, check the casing and the contacts immediately for any damage. Using a damaged battery can damage the camera.
- Batteries have only a limited service life.
- Send defective batteries to an appropriate collection point for proper recycling.
- Never throw batteries into a fire as this can cause them to explode.

# Charger

- If the charger is used in the vicinity of radio receivers it can interfere with reception; Maintain a distance of at least 1 m / 3 ft 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 in it.
- Always keep the charger contacts clean, and never short circuit them.

# Memory cards

- While a picture is being stored or the memory card is being read, it must not be removed, and the camera must not be turned off or exposed to vibrations.
- Make sure to store memory cards in their anti-static container when not in use.
- 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 memory cards as this can damage them and result in loss of the stored data.
- Always remove the memory card if you will not be using the camera 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.

# Storage

- If you are not using the camera for a longer period of time, we recommend that you:
  - a. turn it off,
  - b. remove the memory card, and
  - c. remove the battery
- A lens works like a magnifying glass if bright sunlight shines on the front of the camera. The camera must therefore never be stored without lens protection. Using the lens cap and keeping the camera in the shade (or immediately putting it away in the case) will help prevent damage to the interior of the camera.
- You should preferably store the camera in a closed and padded container so that nothing can damage it and it is protected from dust.
- Store the camera in a dry, adequately ventilated place, where neither high temperatures nor high humidity will occur. When used in humid conditions, the camera should be completely free 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 used. For the same reason, do not store the camera in a leather case for extended periods of time.
- Note down the serial number of your Leica CL, as this is extremely important in case of loss.
- Moisture can cause malfunctions and even permanent damage to the camera and the memory card.

MENU LIST	Favorites		Direct access using the <b>FN</b> - / right setting wheel button <sup>1</sup>		
	Factory setting	Available	Factory setting	Available	Page
Drive Mode	•	•2	•2	•2	36/54
Self Timer		•	•	•	58
Focusing	•	●3		•4	38
Exposure Metering	•	•	•	•	45
Exposure Compensation		•		•	54
ISO		•	•	•	33
Auto ISO Settings		•		•	33
White Balance		65	•	e ×	32
Photo File Format		•	•	•	32
JPG Resolution		•		•	32
Film Style	•	•		•	33
Scene Mode		•	•	•	49
Optical Image Stabilization		•		•	35
Electronic Shutter		•		•	36
Flash Settings		•		•	60
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User Profile	•	•	•	•	76
Video Resolution		•		•	62
Video Settings					63

	Favorites		Direct access using the <b>FN</b> - / right setting wheel button <sup>1</sup>		
	Factory setting	Available	Factory setting	Available	Page
Video Style	•	•			63
Capture Assistants					30
Display Settings					28
Auto Review					65
Lens Profiles		•	•7		35
Customize Control		•1			23
WLAN	•	•	•		80
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Power Saving					29
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1 In picture mode

<sup>2</sup>Drive Mode menu items Interval and Exposure Bracketing, available individually as well

<sup>3</sup>Focusing menu items Focus Mode, AF Mode and Focus Assist, available individually as well

<sup>4</sup> Focusing menu items Focus Mode, Focus Limit (Macro), AF Mode and Focus Assist, available individually as well

<sup>5</sup>White Balance menu item Gray Card, available individually as well

White Balance menu item Gray Card and Color Temperature, available individually as well

<sup>7</sup>Lens Profiles menu items M-Lenses and R-Lenses, available individually as well

<sup>8</sup>Customize Control menu item Edit Favorites, available individually as well

# **APPENDIX**

# DISPLAYS IN THE MONITOR/VIEWFINDER

# Picture mode



- Focusing mode
- 2 White balance mode
- 3 File format/Video resolution/frame rate
- 4 Exposure metering method
- 5 Pictures
  - (Single/continuous mode, time-lapse pictures, bracketing)
- Flash exposure mode, possibly with an indication for flash compensation
- Q Recording level (only for video recordings, appears instead of display 5 and 6)
- 8 WLAN activated/Signal strength
- +9 Data transmission on smartphone incl. remaining pictures
- 10 01:20 Recording time (only for video recordings, appears instead of display 3 and 2)

- 11 Color Rendering
- 12 Stabilization activated
- 13 Battery charge level
- 14 Histogram
- **15** Function of left setting wheel (shortly when activated)
- **16** Function of right setting wheel (shortly when activated)
- Video recording status (gray = video preview, flashing red = video recording; appears instead of 16)
- 18 Auxiliary grid
- 19 Autofocus metering field
- 20 Level Gauge
  - Long horizontal lines show the inclination:
  - red = inclined
  - green = horizontal
  - Short horizontal lines shows the tilt:
  - line visible = tilted
  - no line = not tilted
- 21 Remaining number of images / elapsed video recording time (the I flashes as a warning if there is no storage capacity)
- 22 Shutter speed

90

# 23 Light balance

top = exposure indicator/balance, white lines = exposure fine or difference of up to 3 EV from norm exposure, red lines = more than 3 EV difference from norm exposure; bottom = exposure compensation

- 24 Aperture
- 25 ISO sensitivity/setting
- 26 Exposure mode (\*= reference to modified shutter speed/aperture combination, appears only in program mode and realized shift) / scene program mode
- 27 Hint arrows (only when changing the exposure modes / the scene program mode)



**28** Indication of in-focus edges ("peaking", color selectable)

### Review mode



- 29 Note about marked recording
- **30** File number of the picture shown
- **31** Note about the playback of video recordings
- **32** Note about the use of the center button in order to delete single pictures
- **33** Note about the use of the PLAY button in order to hide the deletion of single pictures



- 34 Scrollbar: serves the page overview
- 35 File number of the picture shown
- **36** Recording time of the marked recording
- **37** Recording date marked recording
- Picture counting mechanism, selected recording/total number of recordings
- 39 Note about marked recordings
- 40 Video recording
- 41 Note about marked recordings



- **42** Symbol to call up the video editing function incl. softkey
- **43** Symbol to leave the video playback incl. softkey
- 44 Volume setting bar
- 45 Display for audio playback (🔹 = audio playback deactivated)
- 46 Scrollbar Playback
- 47 Passed playing time
- 48 Symbol for the continuation of the playback (II) = playback interrupted)

# Displays in the Top Display

When switching on the camera



Camera name
 Battery status

Standard view



3 Aperture4 Exposure mode5 Shutter speed

When changing exposure modes



Currently set exposure mode
Hint arrows for the shift direction

# **TECHNICAL DATA**

### Camera name

Leica CL

# Camera type

Digital APS-C system camera

# Type no.

7323

# Order no.

19 301 (black)

### Lens mount

Leica L bayonet with contact strip for communication between lens and camera

# Compatible lenses

Lenses with Leica L bayonet, Leica M/R lenses using the Leica M-Adaptor-L/Leica R-Adapter L

# Sensor

APS-C-sized CMOS sensor (23.6 x 15.7 mm) with 24.96/24.24 million pixels (total/effective), aspect ratio: 3:2

## Resolution

Overall pixels: 6088 x 4100 pixels (24.96 MP), effective pixels: 6032 x 4032 pixels (24.32 MP), active pixels: 6024 x 4024 pixels (24.24 MP), DNG: 6016 x 4014 pixels (24 MP), JPG: optionally 6000 x 4000 pixels (24 MP), 4272 x 2856 pixels (12 MP) oder 3024 x 2016 pixels (6 MP)

## Photo File Format/Compression Rate

Selectable: DNG, JPG or DNG + JPG

# Video recording format

## MP4

# Video Resolution/Image Sequence

Selectable: 3840 x 2160 p (4 K) 30 B/s, 1920 x 1080 p (FHD) 60 fps, 1920 x 1080 p (FHD) 30 B/s or 1280 x 720 p (HD) 30 fps

# **Duration of Video Recording**

Uninterrupted video recordings are possible up to a maximum length of 29 minutes, dependent of the temperature of the surrounding and of the camera. The maximum file size is 4 GB. If a recording exceeds this limit, the respective part is automatically stored in another file.

## Storage Media

UHS-II. UHS-I. SD/SDHC/SDXC memory card

# **ISO Range**

Automatic, ISO 100 to ISO 50000

# White balance

Automatic, presets for daylight, cloud, halogen lighting, shadow, electronic flash, one memory slot for manual setting, manual color temperature setting

## Autofocus System

contrast-based

# Autofocus metering methods

Spot, field, multi-zone, face detection, touch AF

## Exposure modes

program mode, aperture priority mode, shutter priority mode, manual setting, scene modes: fully automatic, sport, portrait, landscape, night portrait, snow/beach, fireworks, candlelight, sunset, digiscoping, miniature, panorama, HDR

# Exposure metering methods

multi-zone, center-weighted, spot

# **Exposure Compensation**

± 3 EV in 1/3 EV increments

## Automatic exposure bracketing

Three or five pictures in graduations up to  $\pm$  3 EV, adjustable in 1 EV increments

### Shutter speed range

30 s to 1/25000 s (up to 1/8000 s with mechanical, beyond that with electronic shutter)

# **Picture series**

max. approx. 10 fps, 33 pictures (DNG+UPG) at full speed, then depending on memory card properties

# Flash modes

Adjustable with attached, system-compatible flash unit

# Flash exposure compensation

 $\pm$  3 EV in 1/3 EV increments

# Flash sync speed

1/180 s

## Viewfinder

Resolution:  $1024 \times 768$  pixels (2.36 MP), magnification 0.74x, aspect ratio 4:3, exit pupil position 20 mm, configurable ± 4 dioptres, with eye sensor for automatic switching between viewfinder and monitor

# Top display

Resolution: 128 x 58 pixels

# Monitor

3" TFT LCD, 1.04MP, touch control available

# Self-timer

Selectable delay time 2 or 12 s

# WLAN

Satisfies IEEE 802.11b/g/n standard (standard WLAN protocol), channel 1-11, encryption method: WiFi-compatible WPA<sup>™</sup> / WPA2<sup>™</sup>, access method: Infrastructure mode

## Interfaces

ISO accessory shoe with Leica flash interface

# Power supply

Leica BP-DC12 lithium-ion battery, rated voltage: 7.2 V ... (DC), capacity: 1200 mAh (min.), (based on CIPA standards): approx. 220 pictures, charging time (after total discharge): approx. 140 min, manufacturer: Panasonic Energy (Wuxi) Co., Ltd., Made in China

# Charger

Leica BC-DC12, input: AC 100–240 V, 50/60 Hz, automatic switching, output: DC 8.4 V 0.65 A, manufacturer: Shin Tech Engineering Ltd., Made in China

# Body

Top and bottom panels: milled and anodized aluminum, front and rear panels: magnesium

# Tripod thread

A 1/4 DIN 4503 (1/4")

# Dimensions (WxHxD)

approx.. 131 x 78 x 45 mm

# Weight

approx. 403 g/353 g (with/without battery)

# Scope of delivery

camera body, body cap, carrying strap, accessory shoe cover, battery (Leica BP-DC12), charger (Leica BC-DC12), mains cables (EU, US, local mains cable)

# Software

Leica CL app (free download remote control and picture transfer in Apple<sup>TM</sup> App–Store<sup>TM</sup>/Google<sup>TM</sup> Play Store<sup>TM</sup>)

# **LEICA SERVICE ADDRESSES**

# LEICA PRODUCT SUPPORT

The Product Support Department at Leica AG can answer any technical questions relating to Leica products, including support for the supplied software in writing, on the phone or by email. They are also the contact point for purchasing advice and to order manuals. Alternatively, you can send us your questions using the contact form on the Leica Camera AG homepage.

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# LEICA CUSTOMER CARE

The Leica Camera AG Customer Care department or the repair service provided by authorized Leica agents in your country are available for service, maintenance and repairs of your Leica equipment (see the warranty card for a list of addresses).

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