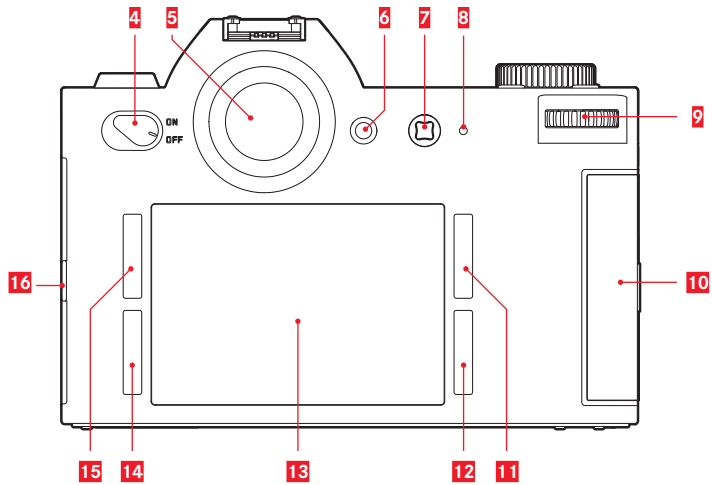
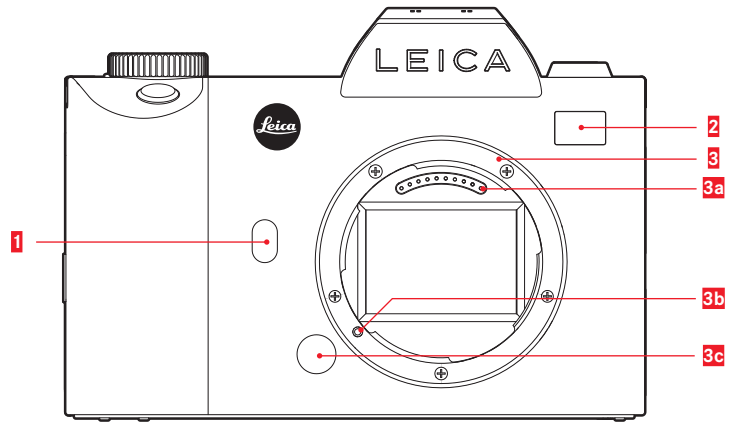
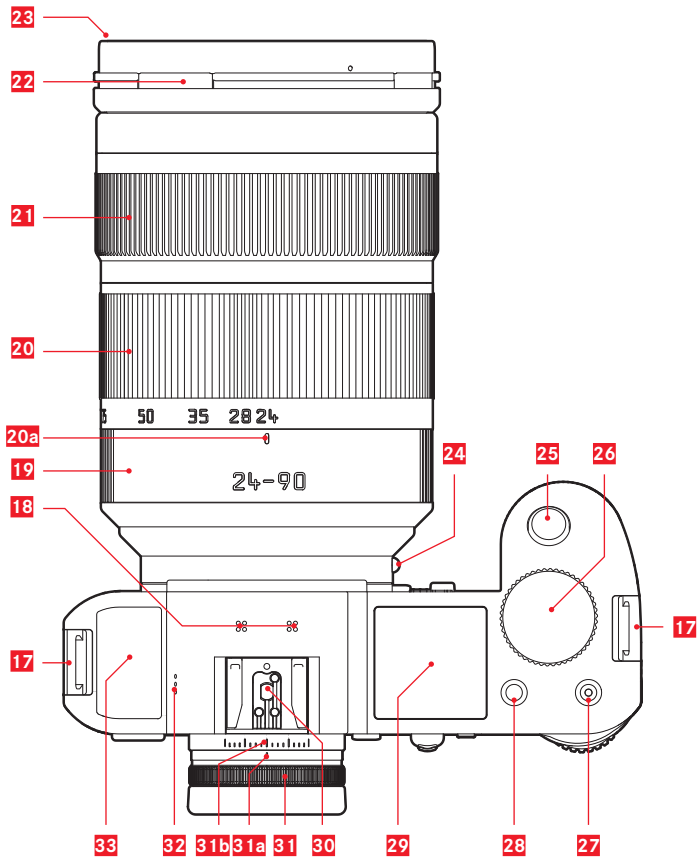


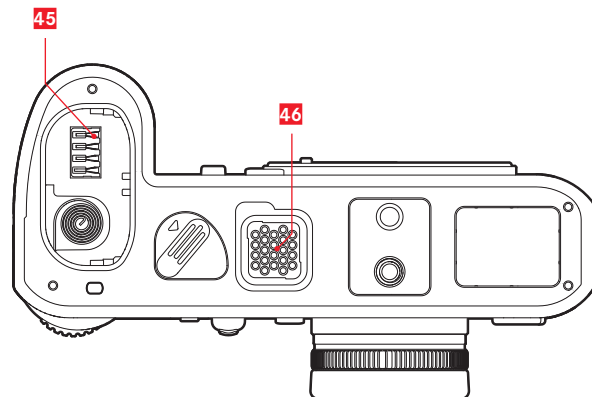
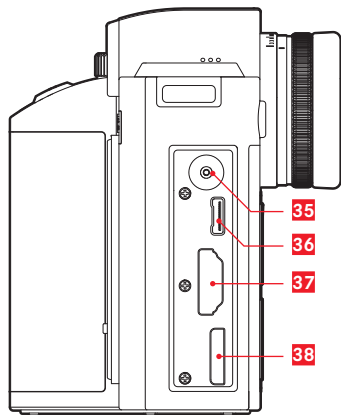
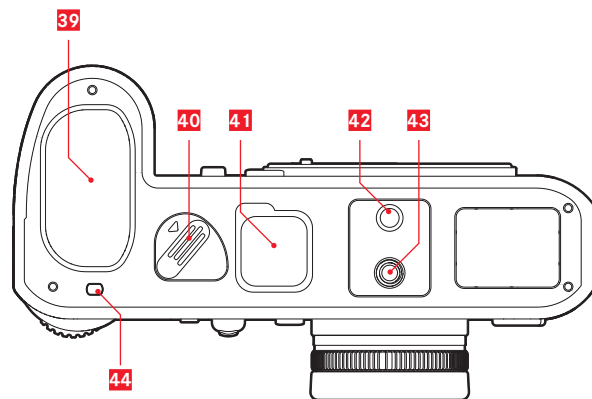
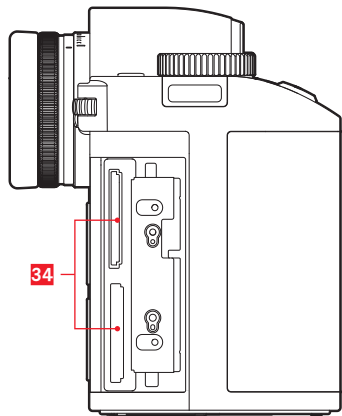


LEICA SL

Instructions









Leica SL
Instructions

FOREWORD

Dear customer,

Leica would like to thank you for purchasing the Leica SL and congratulate you on your choice. With this unique digital 35mm system camera, you have made an excellent selection.

We wish you a great deal of pleasure and success using your new Leica SL. In order to make best use of all the opportunities offered by this high performance camera, we recommend that you first read these instructions.

Your Leica Camera AG

SCOPE OF DELIVERY

Before using your Leica SL for the first time, please check that the supplied parts are complete.

- a. Carrying strap professional
- b. Camera bayonet cap
- c. Lithium-ion battery Leica BP-SCL4
- d. Charger Leica BC-SCL4, including power cable (EU, US)
- e. USB 3.0 micro-B cable
- f. Lens/display cleaning cloth
- g. Cover for contact array in baseplate
- h. Image processing software (free download after registering the camera)
Leica SL App (for remote control and transfer of recordings with tablet or smartphone, free download in Apple® App-Store®/ Google® Play Store®)
- i. Leica Image Shuttle (Software for remote control with computer, free download)

Subject to changes in design and production.

Meaning of the different categories of information in these instructions

Note:

Additional information

Important:

Non-compliance can lead to damage to the camera, accessories, or recordings

Caution:

Non-compliance can lead to personal injury

Caution:

Always store small parts (e.g. the accessory shoe cover) as follows:

- out of reach of children (swallowing may lead to asphyxiation!)
- in a location where they will not get lost, e.g. in the designated positions in the camera packaging

Note:

As digital cameras have many functions that are controlled electronically, improvements and enhancements to the functions can be installed on the camera at a later date.

To do this, Leica releases what are known as firmware updates at irregular intervals. The cameras always have the latest firmware version when shipped, and you can also download it easily from our home page and install it on your camera.

If you register as an owner on the Leica Camera home page, you will receive a newsletter informing you when a new firmware update is available.

Further information on registration and firmware updates for your camera, as well as any amendments and additions to the details provided in these instructions, can be found in the "Owners' Login" area at: <https://owners.leica-camera.com>

To check whether your camera and lenses are equipped with the latest firmware version (see also p. 176 - 181, 271):

1. In the menu's **SETUP** section, select **Camera Information**, and
2. in the submenu, **Firmware Version**.

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To find specific approvals for this product (see also p. 271):

1. In the menu's **SETUP** section, select **Camera Information**, and
2. in the submenu, **Regulatory Information**

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

FOR U.S. ONLY

Contains FCC ID: VPYLBXN604

This device's transmitter must not be co-located or operated in conjunction with any other antenna or transmitter. This device complies with FCC radiation exposure limits set forth for an uncontrolled environment and meets the FCC radio frequency (RF) Exposure Guidelines. This equipment has very low levels of RF energy that are deemed to comply without testing of specific absorption ratio (SAR).

FCC Note:

This device has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This device generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.

If this device does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the distance between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.



A recyclable lithium ion/polymer battery powers this camera. Please call 1-800-8-BATTERY for information on how to recycle this battery.

FCC Caution:

To assure continued compliance, follow the attached installation instructions and use only shielded interface cables with ferrite core when connecting to computer or peripheral devices.

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

Trade Name: LEICA
 Model No.: LEICA SL (Typ 601)
 Responsible party/ support contact: Leica Camera Inc.
 1 Pearl Count, Unit A
 Allendale, New Jersey 07401
 Tel.: +1 201 995 0051
 Fax: +1 201 995 1684
 technicalinfo@leicacamerausa.com

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference.
- (2) This device must accept any interference received, including interference that may cause undesired operation.

Leica SL (Typ 601)

Tested To Comply
 With FCC Standards

FOR HOME OR OFFICE USE

FOR CANADA ONLY:**CAN ICES-3 (B)/NMB-3(B)**

This device complies with RSS-210 of the IC Rules. Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference,
- (2) This device must accept any interference received, including interference that may cause undesired operation of the device.

This equipment complies with IC radiation exposure limits set forth for an uncontrolled environment and meets RSS-102 of the IC radio frequency (RF) Exposure rules. This equipment complies with IC radiation exposure limits set forth for an uncontrolled environment and meets RSS-102 of the IC radio frequency (RF) Exposure rules.

CE NOTE

The CE identification of our products documents compliance to the fundamental requirements of the valid EU guidelines.



Declaration of Conformity (DoC)

Hereby, "Leica Camera AG" declares that this product is in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC. Customers can download a copy of the original DoC to our R&TTE products from our DoC server.

www.cert.leica-camera.com

In case of further questions, please contact:

Leica Camera AG, Am Leitz-Park 5, 35578 Wetzlar, Germany

This product is intended for general consumer. (Category 3)

This product on purpose to connect to access point of 2.4 GHz WLAN

WARNING NOTES

- Modern electronic components react sensitively to electrostatic discharge. As people can easily pick up charges of tens of thousands of volts, by walking on synthetic carpets for example, a discharge can occur when you touch your 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, the outer contacts, such as those on the base of the camera, should not be touched if at all possible for safety reasons.
- For any cleaning of 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, earthed material). You can also avoid soiling and oxidization of the contacts by storing your camera in a dry place with the lens or bayonet caps attached.
- You should only use the recommended accessories to prevent faults, short circuits or electric shock.
- Do not attempt to remove parts of the body (covers); specialist repairs can only be carried out at authorized service centers.

LEGAL NOTICES

- 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.
- This product incorporates open source software which is distributed in the hope that it will be useful, but without any warranty whatsoever, i.e. without even the implied warranty of merchantability or the software's applicability for a particular purpose. Please refer to the detailed terms and conditions thereof displayed by selecting **[MENU/SET]** > **[Setup]** > **[Version Disp.]** > **[Software info]**.
- This product is licensed under the AVC patent portfolio license for the personal and noncommercial use of a consumer 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 and non-commercial activity and/or was obtained from a video provider licensed to provide AVC Video. No license is granted or shall be implied for any other use. Additional information may be obtained from MPEG LA, LLC. See <http://www.mpegla.com>.
- SD, SDHC, and SDXC are trademarks of SD-3C, LLC.
- USB is a trademark of the USB Implementers Forum, Inc..
- HDMI (High-Definition Multimedia Interface) is a trademark or a registered trademark of HDMI Licensing LLC in the United States and other countries.
- Adobe is a trademark or a registered trademark of Adobe Systems Incorporated in the United States and/or other countries.
- Mac, iPad, iPhone and are trademarks of Apple Inc., registered in the U.S. and other countries.
- App Store is a service mark of Apple Inc.

- Windows is either a registered trademark or a trademark of Microsoft Corporation in the United States and/or other countries.
- Android and Google Play are trademarks or registered trademarks of Google Inc.
- QR Code is a registered trademark of DENSO WAVE INCORPORATED.
- Other names of systems and products mentioned in these instructions are usually the registered trademarks or trademarks of the manufacturers who developed the system or product concerned.



DISPOSAL OF ELECTRICAL AND ELECTRONIC EQUIPMENT

(Applies within the EC, and for other European countries with segregated waste collection systems)

This device contains electrical and/or electronic components and therefore should 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 itself contains replaceable (rechargeable) batteries, these must be removed first and, if necessary, also be disposed of in line with the relevant regulations. Your local authority or waste disposal authority, or the store where you bought this device, can provide you with further information on this issue.

DESIGNATION OF PARTS

Front view

- 1** Stop down/**FN** button
- 2** Self timer LED / Sensor for white balance
- 3** Bayonet for lens mounting with
 - a** Contact strip
 - b** Locking pin/Index point
 - c** Unlocking button

Rear view

- 4** Main switch
- 5** Viewfinder
- 6** Function button
- 7** Joystick
- 8** LED for indicating picture mode / recording data on to the card / Brightness sensor
- 9** Click wheel
- 10** Door over memory card slots
- 11** Menu control/function button (**TR**)
- 12** Menu control/function button (**BR**)
- 13** Monitor
- 14** Menu control/function button (**BL**)
- 15** Menu control/function button (**TL**)
- 16** Cover over sockets

Top view

- 17** Carrying strap clip
- 18** Microphones
- 19** Fixed ring
- 20** Zoom ring with
 - a** Index mark
- 21** Distance setting ring
- 22** Bayonet for lens hood
- 23** Filter thread
- 24** Red alignment button for changing lens
- 25** Shutter release button
- 26** Top dial
- 27** Video release button
- 28** **LV** button
- 29** Top panel display
- 30** Accessory shoe
- 31** Eyecup with
 - a** Index mark
 - b** Diopter setting scale
- 32** Loudspeaker
- 33** GPS Antenna

View from right (illustration without door)

34 Memory card slots

View from left (illustration without cover)

35 Threaded flash sync socket

36 Remote control / Headphone / external microphone socket

37 HDMI socket

38 USB socket

Bottom views

39 Battery

40 Battery release lever

41 Cover over handgrip contacts

42 Hole for multi-function hand gripguide pin

43 Tripod plate with ¼" thread

44 Hole for rotation prevention pin

45 Contacts in battery compartment (battery removed)

46 Contacts for handgrip (cover removed)

QUICK GUIDE

Required parts:

- Camera
- Lens (not supplied)
- Battery
- Charger with appropriate AC-cable
- Memory card (not supplied)

Note:

The settings recommended here allow you to take good photographs easily, quickly and reliably when you first start to try out the Leica SL. For details of the various modes/functions, refer to the corresponding sections on the specified pages.

Preparations:

1. Attach a lens (see p. 172).
2. Charge a battery (see p. 168).
3. Set the main switch to **OFF** (see p. 174).
4. Insert the charged battery in the camera (see p. 170).
5. Insert a memory card (see p. 171).
6. Set the main switch to **ON** (see p. 174).
7. Set the menu language (see p. 186).
8. Set the date and time (see p. 186).

Taking photographs

1. Press the shutter button to the first pressure point to activate distance setting and exposure metering and to save the values.
2. Push the shutter button all the way down to take the photo.

Viewing photographs:

Press the upper right button next to the monitor.
Depending on the camera's previous status, you may have to press more than once to call up the button function icon (▶) first.

To view different pictures:

Turn the click wheel or press the joystick right or left, or use gesture control (see. p. 243/291).

Enlarging pictures:

Turn the top dial right or left, or use gesture control (see. p. 244/291).

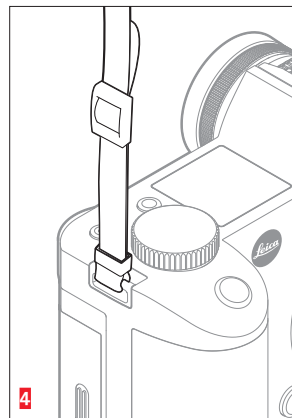
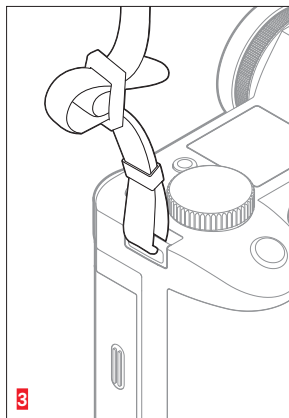
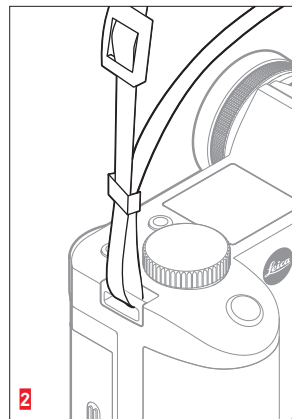
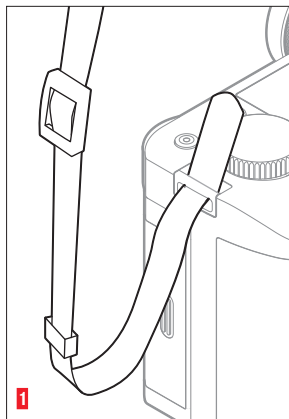
Deleting pictures:

Press the lower left button next to the monitor.

DETAILED INSTRUCTIONS

PREPARATIONS

ATTACHING THE CARRYING STRAP



CHARGING THE BATTERY

The Leica SL is powered by a Lithium ion battery.

Caution:

- Only the battery type specified and described in these instructions, and/or battery types specified and described by Leica Camera AG, may be used in this camera.
- This battery may only be used in the units for which it is designed and may only be charged exactly as described below.
- Using this battery contrary to the instructions and using non-specified battery types may result in an explosion under certain circumstances
- The battery may not be exposed to sunlight, heat, humidity or moisture for long periods. Likewise, it may not be placed in a microwave oven or a high pressure container to prevent a risk of fire or explosion.
- Moist or wet batteries may not be charged or used in the camera under any circumstances.
- Always ensure that the battery contacts are clean and freely accessible. While lithium ion batteries are protected against short circuits, they should still be protected against contact with metal objects such as paper clips or jewelry. A short-circuited battery can get very hot and cause severe burns.
- If a battery is dropped, check the casing and the contacts immediately for any damage. Using a damaged battery can damage the camera.
- In case of smell, discoloration, deformation, overheating or leaking fluid, the battery must be removed from the camera or charger immediately and replaced. Continued use of such a battery carries a risk of overheating, resulting in fire and/or explosion.
- In case of leaking fluid or a smell of burning, keep the battery away from sources of heat. Leaked fluid can catch fire.
- A safety valve in the battery ensures that any excess pressure resulting from improper use is reduced in a controlled way.
- Only the charger specified and described in these instructions, or other chargers specified and described by Leica Camera AG, may be used. The use of other chargers not approved by Leica Camera AG can cause damage to the batteries and, in extreme cases, lead to serious or life-threatening injuries.
- The charger supplied should be used exclusively for charging this battery type. Do not attempt to use it for other purposes.
- Ensure that the mains outlet used is freely accessible.
- The battery and charger may not be opened. Repairs may only be carried out by authorized service stations.
- Ensure that the batteries cannot be accessed by children.

First aid:

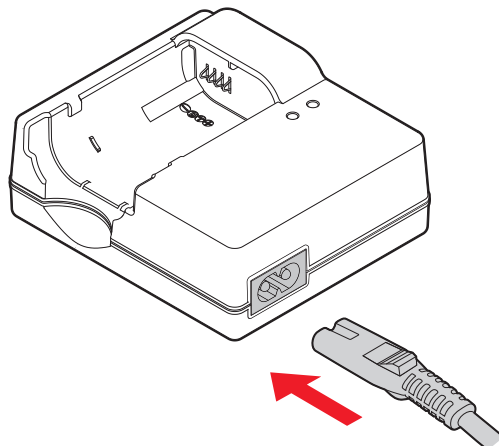
- If battery fluid comes into contact with the eyes, there is a risk of blinding. Rinse the eyes immediately with clean water. Do not rub the eyes. Seek medical attention immediately.
- If leaked fluid gets onto the skin or clothing, there is a risk of injury. Rinse the affected areas with clean water. Seek medical attention.

Notes:

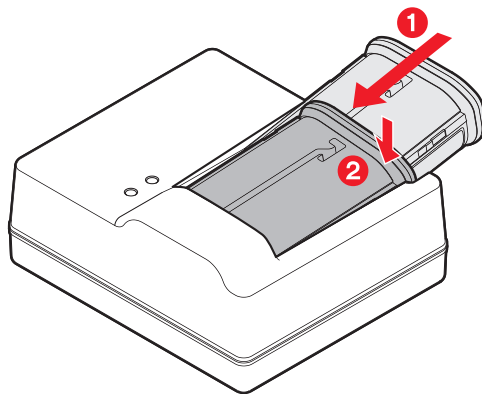
- The battery must have a temperature of 0°-35°C /32°-95°F to be charged (otherwise the charger will not turn on, or will turn off again).
- Lithium ion batteries can be charged at any time, regardless of their current charge level. If a battery is only partly discharged when charging starts, it is charged to full capacity faster.
- The batteries and the charger heat up during the charging process. This is normal and not a malfunction.
- If the two LEDs flash rapidly (> 2Hz) after starting charging, this indicates a charging error (e.g. maximum charging time exceeded, voltages or temperatures outside the permitted ranges, or short circuit). In this case, disconnect the charger from the mains and remove the battery. Ensure that the above temperature conditions are met and then restart the charging process. If the problem persists, please contact your dealer, the Leica office in your country or Leica Camera AG.

- Lithium ion batteries should only be stored in a partially charged condition, i.e. not completely discharged or fully charged (see p. 169). If stored for very long periods, it should be charged up and discharged again around once a year.
- Rechargeable lithium ion batteries generate power through internal chemical reactions. These reactions are also influenced by the external temperature and humidity. To ensure a maximum service life of the battery, it should not be exposed to constant extremes (high or low) of temperature (e. g. in a parked car in the summer or winter).
- Even when used under optimum conditions, every battery has a limited service life! After several hundred charging cycles, this becomes noticeable as the operating times get significantly shorter.
- Hand in damaged batteries at a collection point for proper recycling, in line with the applicable regulations (see p. 159).
- The replaceable battery provides power to a back-up battery inside the camera. This back-up battery retains the set date and time for up to 3 months. If this back-up battery becomes discharged 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, you will have to set the date and time again in this situation.
- Remove the battery if you will not be using the camera for a long period of time. When doing so, turn the camera off using the main switch first (see p. 174). Otherwise, after several weeks the battery could become totally discharged, i.e. 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.

PREPARING THE CHARGER

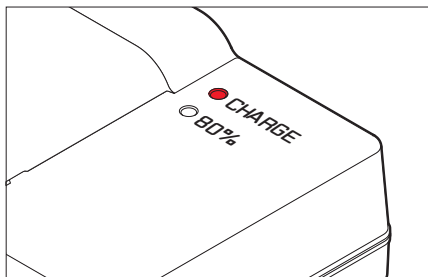


INSERTING THE BATTERY IN THE CHARGER



CHARGE STATUS DISPLAYS

The charging process is indicated by LEDs.



CHARGE LED (green): Flashing indicates charging in progress.

80% LED (orange): Lighting up indicates this charge level achieved.

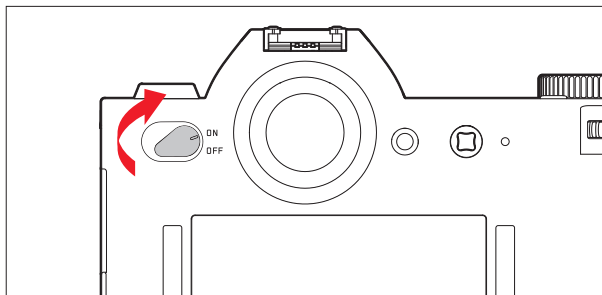
Both LEDs light up: Charging has been completed.

Notes:

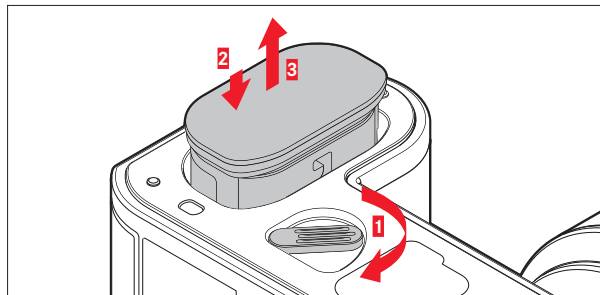
- The charger automatically switches to the prevailing mains voltage.
- Disconnect the charger from the electrical socket and remove the battery after charging is completed.

CHANGING THE BATTERY

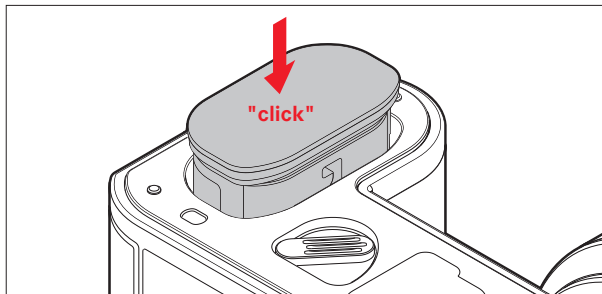
Turn off the camera.



Remove the battery.



Insert the battery.



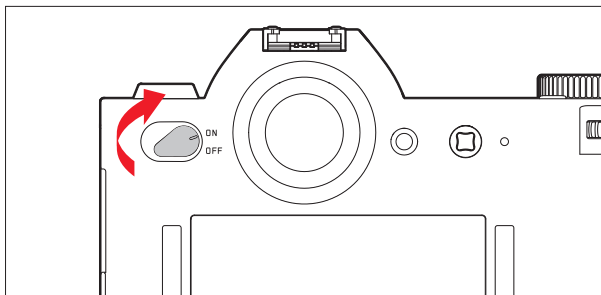
Note:

When the lever is turned, a spring in the battery compartment pushes the battery out so it can be grasped. The locking mechanism has a catch to prevent the battery from accidentally falling further out, even if the camera is held upright.

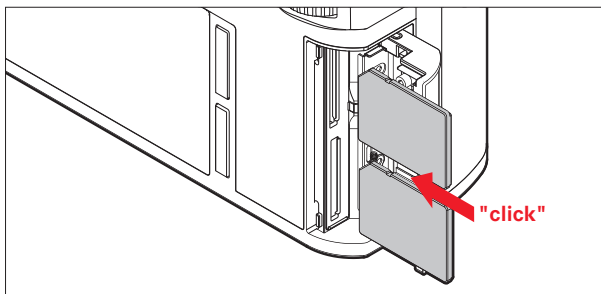
CHANGING THE MEMORY CARD(S)

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

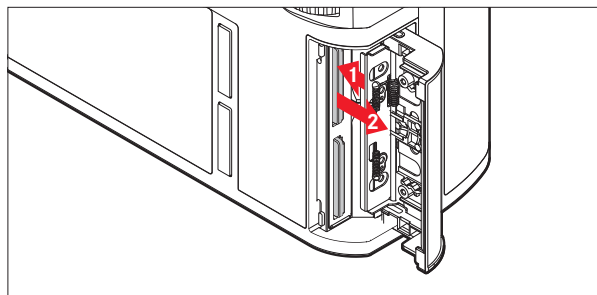
Turn off the camera.



Insert a memory card.



Remove a memory card.



Notes:

The card slots are numbered: Top = 1, Bottom = 2. Slot 1 operates according to UHS II standards, slot 2 only according to UHS I. This must be taken into account, e.g. when recording 4k video (see p. 230) and using the **Storage Backup** function (see p. 193).

Important:

Do not open the card door and do not remove a memory card or the battery while the LED is lit to indicate that the camera is accessing the memory. Otherwise, the data on the card/s can be destroyed and the camera may malfunction.

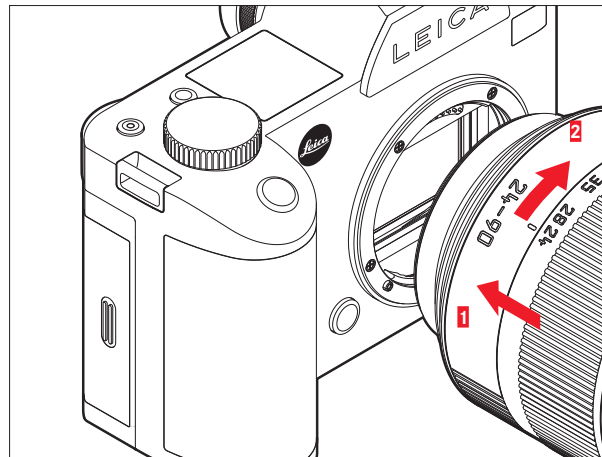
- SD, SDHC and SDXC cards have a write protection switch, that can be used to prevent unintentional storage and deletion of pictures. This switch takes the form of a slider on the non-beveled side of the card; in the lower position, marked LOCK, the data is protected.
- If a memory card cannot be inserted, check that it is aligned correctly.
- If a memory card is inserted, pictures are only saved on the card.
- 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. Although no damage to the camera or the card is generally expected, because some "no name" cards may not fully comply with the SD/SDHC/SDXC standards Leica Camera AG cannot provide any guarantee of function.
- As electromagnetic fields, electrostatic charge, and defects of the camera or the card can lead to damage or loss of the data on the memory card/s, we recommend that you also transfer the data to a computer and save it there.

ATTACHING / DETACHING A LENS

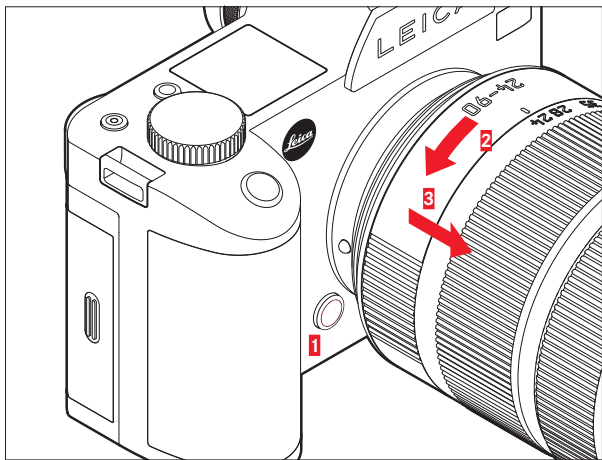
Usable lenses

Next to Leica SL lenses, you can also use Leica M and Leica R lenses with the help of adapters (see p. 272).

Attaching



Detaching

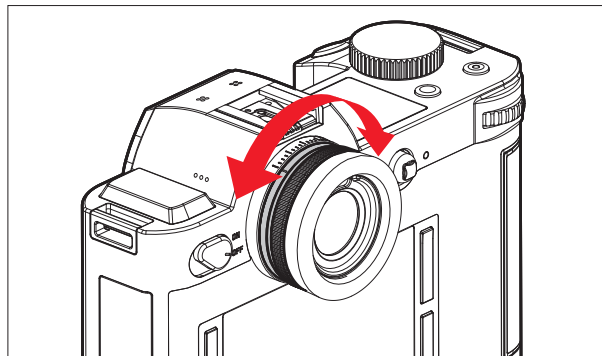


Notes:

- To protect against dust getting into the interior of the camera, it is important always to have a lens or a cap attached to the camera body.
For the same reason, when changing lenses, work quickly and in an environment that is as dust-free as possible.
- Camera or lens rear caps should not be stored in your pants pockets as they attract dust that can get into the camera when they are attached.

ADJUSTING THE VIEWFINDER EYEPIECE

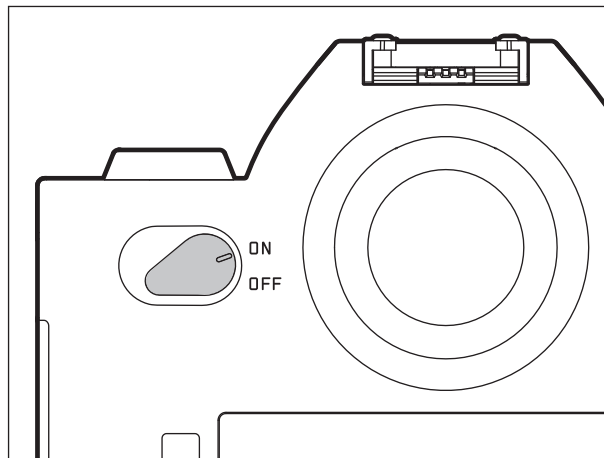
The viewfinder can be adjusted from -3 to +1 diopters, so that it is exactly set to match your eye. While looking at the viewfinder image, turn the Diopter setting scale until both the image and all the displays are sharp.



SWITCHING THE CAMERA ON/OFF

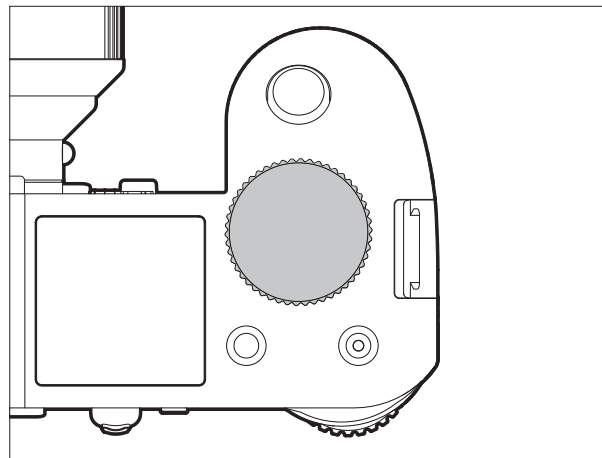
The Leica SL is turned on and off using the main switch.

- **OFF** = Turned off
- **ON** = Turned on



TOP DIAL

In recording mode, the top dial is used mainly to adjust the exposure by changing the shutter speed (see p. 218). In review mode, it is used for different functions (see p. 244/245).



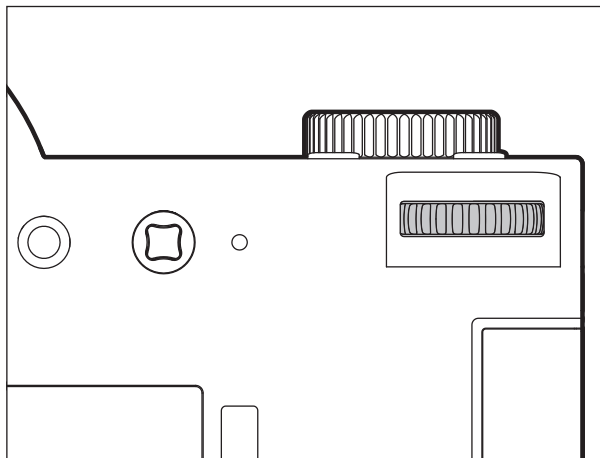
CLICK WHEEL

In recording mode, the rear wheel is used to

- to select the exposure control mode (see p. 217), and
- to adjust the exposure by changing the aperture (see p. 221).

In review mode, it is used for different functions (see p. 243 - 248)

During menu control, it is used to navigate within menus and submenus, as well as to set and to confirm settings (see p. 177).



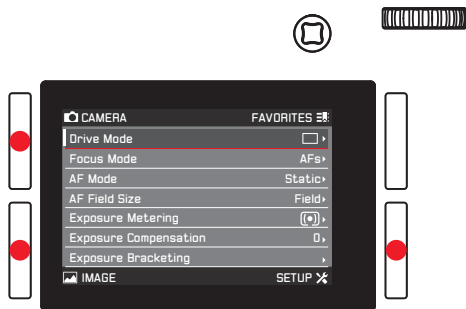
MENU CONTROL

Most of the modes and settings on the Leica SL are operated using menus. Navigating and making settings throughout the menus is extremely quick and easy, as

- the menu items in the main menu are divided into three logically grouped function sections that can be accessed directly,
- six buttons allow direct access to freely assignable menu items, and
- there is a separate, freely assignable **FAVORITES** menu.

Calling up the main menu

To call up menu control and directly access the three main menu sections, and also, within the sections, to 'jump' to the individual pages they consist of, you use three of the four buttons located to the left and right of the monitor.

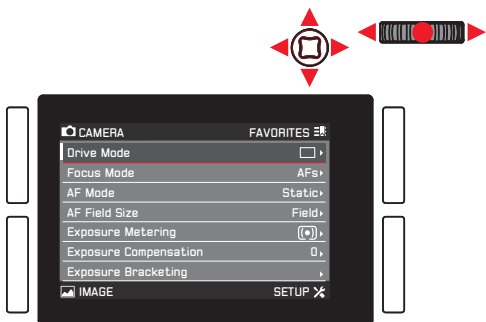


Notes:

- These three buttons are so-called "soft keys". Outside the normal menu control, e.g. when reviewing pictures in the monitor, they have different functions, indicated by corresponding displays. The same applies to the upper right button next to the monitor, the function button on the front, and the Live View button on the top.
- During the further course of these instructions, the four buttons next to the monitor will either be identified by stating their specific functions in the relevant situations, or they will be designated as follows:
 - **TL** (top left)
 - **BL** (bottom left)
 - **TR** (top right)
 - **BR** (bottom right)
 The Live View button will be designated **LV**, and the function button **FN**.

Menu settings

All settings for the menu items can either be made using the click wheel or the joystick.



Exiting the menu

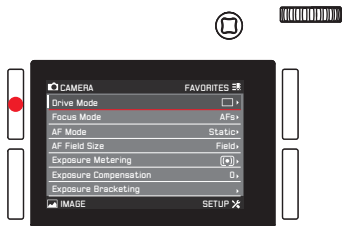
You can exit the menu in various ways:

- To activate photo recording mode:
Tap the shutter release button (see p. 204)
- To take a photo:
Press the shutter release all the way.
- To activate video preview mode:
Press the **LV** button.
- To start a video recording:
Press the video release button (see p. 236)

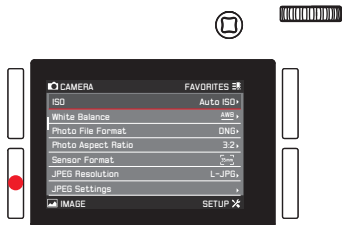
Main menu function sections

The menu list is divided into 3 sections:

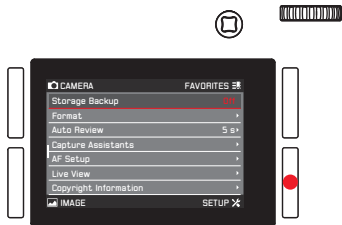
- CAMERA



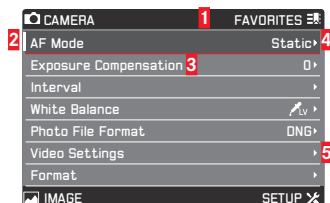
- IMAGE



- SETUP



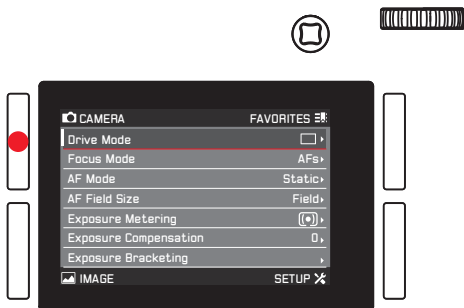
Menu screen



- 1 Function section titles, the selected one is indicated by a gray background
- 2 Scrollbar, indicates on which of the 8 pages you are within the main menu item list, the function sections are made up of 2 or 4 pages
- 3 Menu item name
- 4 Menu item setting / value, the active menu item is highlighted (white lettering, dark background, underlined in red), this applies to all menu levels
- 5 Triangle, indicates the existence of a submenu

Selecting menu items

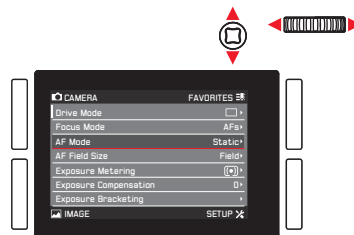
1. Select the first page of a menu section by briefly (≤ 1 s) pressing the respectively marked button: Three times if the button function icons are activated, two times if not.
 - If you were in recording mode, an intermediate step calls up the **FAVORITES** menu (see p. 184).



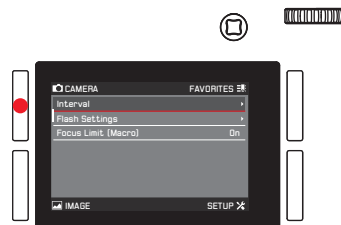
- If you were in review mode, an intermediate step initially displays only the button function icons that are valid in this situation - (Menu), (Rating), (Displays), and (Delete).

2. To select the individual menu items
 - either turn the click wheel right (= down) or left (= up),
 - or press the joystick up or down.

Using these two controls, the items in all three main menu sections are in one common continuous loop, so they can all be reached in either direction by scrolling through the list.



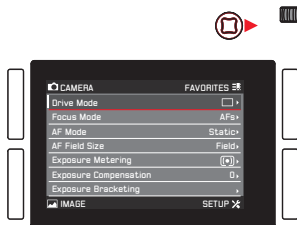
To facilitate faster navigation within the three menu sections, it is also possible to 'jump' directly from page to page by pressing the relevant button next to the monitor. In this case, each section is itself arranged as a closed continuous loop.



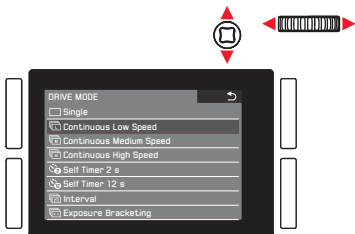
Setting menu items with submenu

(with triangle mark on the right)

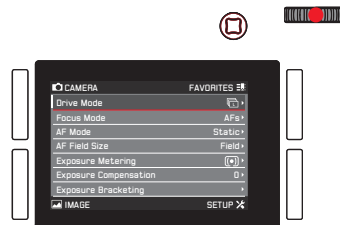
- Press the click wheel or the joystick inwards or to the right.
 - The submenu appears, listing the available options or the values that can be set.



- Turn the click wheel or press the joystick in the relevant direction (different depending on whether you are using a list or a scale) to select the desired option / value.



- Press the click wheel or the joystick inwards to confirm the set option / value.
 - The display returns to the next higher menu level, or, for functions that require further settings, advances to the next option.

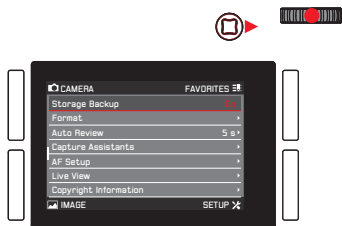


Setting menu items without submenu


(without triangle mark on the right)

- Press the click wheel or the joystick inwards or to the right.
 - The set option changes.

The setting is immediately active, i.e. it does not have to be confirmed.



Notes:

- The screen disappears again after 4s, i.e. settings must be made within this period of time. Briefly pressing the button labeled  allows you to return to the menu at any time without applying any changes made in the submenus. Except in the case of menu items requiring a horizontal movement to set them, this can also be done by pressing the joystick to the left.
- Certain submenus consist of a scale. Settings on these scales can be performed using either menu or gesture control. Menu control works as described here, gesture control is described in the relevant sections.

DIRECT ACCESS TO MENU ITEMS

For quick operation, you can use the four buttons next to the monitor, the **LV** button, and the **FN** button to directly access six menu items. You can assign the desired menu item for each button. See 'Menu List', p. 292, 293, for the items available for direct access.

Note:

In their direct access default settings, the buttons are assigned as follows:

TL: **ISO**

BL: **Exposure Metering**

BR: **White Balance**

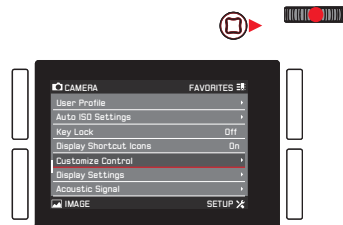
TR: **Focus Mode**

FN: White balance submenu **Graycard**
(**-photo** or **-video** depending on the recording mode in use)

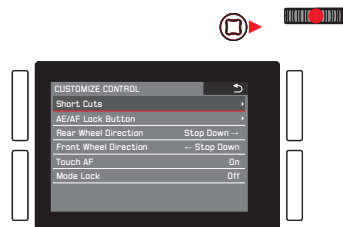
LV: **Exposure Compensation**

Setting the function / assigning the buttons

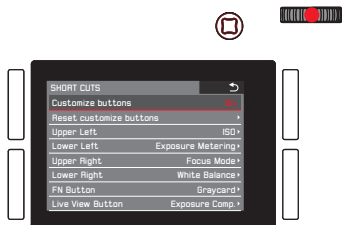
1. In the menu's **SETUP** section, select **Customize Control**.



2. Select **Short Cuts** in the submenu.



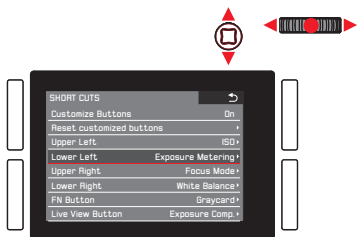
3. In **Customize Buttons**, select **On** if you want to change a button's assigned function, or **Off** if you wish to switch off the direct access function for all six buttons at once.
 - If **Off** is selected, the lines for the six buttons in this sub-menu are not accessible (grayed out).



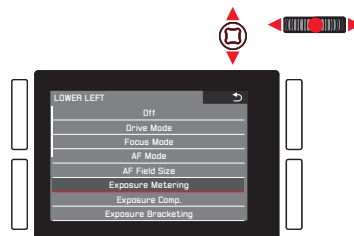
If you want to replace all of your direct access settings by the default settings at once:

Select **Yes** in **Reset customized buttons**.

4. Select the desired button.



5. In the corresponding submenu, select the function you want to call up directly or execute using the button selected in step 4, or **Off** if you do not want this button to have a direct access function.



The other buttons are assigned in the same way.

Calling up the selected menu items

This is possible at any time in recording mode:

1. Press the above mentioned buttons, and
2. make further settings or execute the function as described earlier in this chapter.

THE FAVORITES MENU

Next to direct access to individual menu items with the six previously described soft keys, this menu represents a second way to access frequently used menu items quicker than possible by scrolling through the main menu. Since you can assign up to 14 items to the **FAVORITES** menu, you can utilize it as a customized and condensed ‘personal’ menu. See „Menu List“, p. 292, 293, for a list of the selectable menu items.

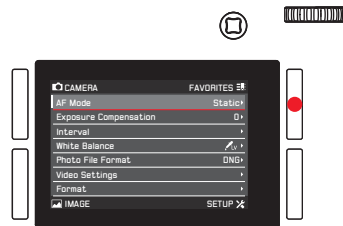
In its default setting, the **FAVORITES** menu consists of the following items:

- **AF Mode**
- **Exposure Compensation**
- **Interval**
- **White Balance**
- **Photo File Format**
- **Video Settings**
- **Format**
- **Optical Image Stabilization**
- **GPS**

Calling up the FAVORITES menu

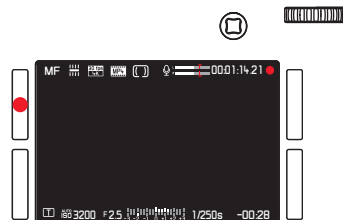
When the main menu has been called up:

Press the **TR** button.



In recording and playback modes:

Press the **TL** button.



Deleting /adding menu items

1. In the **SETUP** menu, select **Customize Control**, and
2. in the submenu **Edit Favorites**.
 - Another submenu appears containing all available menu items, including those already in the **FAVORITES** menu. The latter are set to **On**, those not included to **Off**.
3. To add an item, switch it **On**, to delete one, switch it **Off**.

Note:

If all available items are switched off, **FAVORITES** is grayed out, i.e. this menu is not accessible.

Navigating in the **FAVORITES** menu

This is the same as described for the main menu.

BASIC CAMERA SETTINGS

MENU LANGUAGE

The default setting for the language used in the menu system is English. Other languages can be selected.

Setting the function

1. In the menu's **SETUP** section, select **Language**, and
2. in the submenu, the desired language.
 - Apart from a few exceptions (button labels, short designations), the language of all texts is changed.

DATE AND TIME

Note:

With the default setting **Auto GPS Time**, the time, the time zone, and the date are all set automatically.

Date

Setting the function

1. In the menu's **SETUP** section, select **Date & Time**, and
2. call up the submenu. It consists of the 5 items **Auto GPS Time**, **Time Zone**, **Daylight Saving Time**, **Date Setting** and **Time Setting**.
3. Select **Date Setting**.
 - A further submenu is displayed. It contains:
 - in the headline, the momentarily set date format
 - below the headline, three columns for the day, the month and the year.
4. To switch between the headline and the day, month and year columns, press the click wheel or the joystick to the left, right or inwards.

To set the numbers and the month, turn the click wheel or press the joystick up or down.
5. To confirm and save your settings, press the **BR** button (next to the **OK** display).
 - The first submenu reappears.

Time

Setting time and time format

These settings are made in the **Time Setting** submenu the same way as previously described for **Date Setting**.

Activating / Deactivating **Auto GPS Time** and **Daylight Saving Time**

1. In the **Date & Time** submenu, select the desired item, and
2. the desired setting by pressing the click wheel or the joystick to the right or inwards.

Notes:

- **Auto GPS Time** can only be activated, if the **GPS** function / menu item is activated.
- When **Auto GPS Time** is activated, the time set on the camera is continuously updated according to the received **GPS** signals. Consequently, **Time Zone** and **Daylight Saving Time** are deactivated, and the respective settings are over-ruled.

Setting **Time Zone**

1. In the **Date & Time** submenu, select **Time Zone**, and
2. in the submenu, the desired zone according to the listed cities and/or time shifts by turning the click wheel or pressing the joystick up or down.

Note:

Even when no battery is inserted in the camera or the battery is flat, the date and time settings are maintained by a built-in back-up battery for about 3 months. However, after that time the date and time must be set again as described above.

ENERGY-SAVING SETTINGS

In order to increase battery life, you can have the monitor and/or camera switched off automatically after a specified period of time.

Setting the function

1. In the menu's **SETUP** section, select **Power Saving**,
2. in the sub-menu, **Auto Power Off** or **Auto LCD Off**, and
3. the desired settings in the respective submenus.

If these functions are active, the camera switches to energy-saving standby mode or the monitor switches off after the selected time.

Note:

Even if the camera is in standby mode, it can be activated again at any time by pressing the shutter release button or by turning it off and back on with the main switch.

MONITOR/VIEWFINDER SETTINGS

Switching between monitor and viewfinder

The displays are the same, regardless of whether they appear on the monitor or in the viewfinder.

You can determine whether the displays appear on the monitor only, or automatically switch between monitor and viewfinder, based on the proximity sensor in the eyepiece (default setting).

Setting the function

Press the button immediately to the right of the viewfinder.

Additionally, you can also change the sensitivity of the sensor. In order to ensure that the switch happens reliably, eyeglass wearers should select **Auto - High Sens.**, whereas users without glasses can leave it set to **Auto - Low Sens.**

1. In the menu's **SETUP** section, select **Display Settings**,
2. in the sub-menu **Eye Sensor Sensitivity**, and
3. the desired setting in the corresponding submenu.

Monitor brightness

The brightness of the monitor display can be changed for optimized recognition and adjustment to different lighting conditions.

Setting the function

1. In the menu's **SETUP** section, select **Display Settings**,
2. in the sub-menu **LCD Brightness**, and
3. the desired setting in the corresponding submenu.

ACOUSTIC SIGNALS

With the Leica SL, you can decide whether you want your settings and some other functions to be acknowledged by an acoustic signal – two volumes are available – or whether operation of the camera and actually taking photographs should be predominantly free of noise.

Setting the function

1. In the menu's **SETUP** section, select **Acoustic Signal**,
2. in the submenu **Volume**, and
3. in the corresponding submenu, the desired setting.

Setting the desired signals

1. In the menu's **SETUP** section, select **Acoustic Signal**,
2. in the submenu one of the two options **AF confirmation**, and **Acoustic Signals**, and
3. in the corresponding submenus, the desired settings.

BUTTON FUNCTION DISPLAYS

You can select whether or not icons indicating the functions of the four buttons next to the monitor are displayed during recording and playback modes. See p. 286, 289 for illustrations of the icons.

Setting the function

1. In the menu's **SETUP** section, select **Display Shortcut Icons**, and
2. switch the function **On** or **Off**.

Display options

In addition to the default information set displayed in bars at the upper and lower edge of the screen, you have a choice of a number of options to customize the display set during recording and review modes. These include additional information as well as focusing, exposure, and composition aids. See also p. 284.

There are three operations involved:

- Switching the displays on or off, thereby determining which of them can be called up
- Modifying the displays (only available in some cases)
- Calling up the displays

Selecting the functions

1. In the menu's **SETUP** section, select **Live View**, and
2. in the submenu, switch the functions **On** or **Off**.

The display sets thus selected are available in an endless loop by pressing the **BR** button.

The display set selected last in recording and review modes is always active when switching between them.

If the button function displays are not displayed, pressing the **BR** button also calls them up. They disappear again after a few seconds.

When **Full Screen** is switched **On**, a full screen image display without any information whatsoever is available.

Camera Info setting changes the order in which the different display sets appear when pressing the **BR** button.

Histogram and Clipping/Zebra

The histogram depicts the brightness distribution in 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 – together with the impression of the picture itself – provides an additional quick and easy assessment of the exposure setting.

The clipping and zebra displays indicate bright areas in a picture that would be rendered without detail, i.e. overexposed (when taking the picture) or are recorded this way (when reviewing). The differences between the two are:

- The clipping display is used for photos, the respective areas flash in black.
- The zebra display is used for videos, the respective areas are indicated by a moving black and white stripe pattern.

Thus, the clipping and zebra displays facilitate easy recognition of affected parts of the image and precise adjustment of the exposure setting.

In order to customize these displays to match specific conditions or your compositional ideas, you can determine their threshold level, i.e. at which degree of overexposure they appear.

Setting the function

1. In the menu's **SETUP** section, select **Capture Assistants**,
2. in the submenu **Clipping / Zebra definition**, and
3. in the respective submenu, **Upper limit**, or **Off** if this display should not appear.
4. If you selected **Upper limit**, set the desired threshold value in the setting screen with the click wheel or the joystick:
 - click wheel turn in the desired direction, or press for single-digit advance
 - joystick press left or right in the desired direction, or inwards for single-digit advance

The values are arranged in an endless loop.

Notes:

- The histogram is always based on the displayed brightness, i.e. depending on other settings, it may not represent the final exposure.
- In recording 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 histogram cannot represent the final exposure as the flash is fired after it is displayed.
- When viewing a picture, the histogram may differ slightly from that shown when taking the picture.
- The histogram is not available for simultaneous review of several reduced pictures or for enlarged pictures.
- The clipping display is available when viewing both the entire picture and a section of it, but not when simultaneously viewing 12 or 30 reduced pictures.
- The clipping display always relates to the detail of the part of the picture currently being displayed.

Grid

The grid divides the image field into several fields of the same size. It facilitates things such as picture composition and exact camera orientation. You can select the grid partition to match the subject.

Setting the function

1. In the menu's **SETUP** section, select **Capture Assistants**,
2. in the submenu **Grid Setup**, and
3. in the respective submenu, the desired partitioning, or **Off** if this display should not appear.

Horizon

Integrated sensors make it possible for the Leica SL to show its orientation. This indicator enables you to align the camera precisely in the longitudinal and transverse axes to capture critical subjects, e.g. architecture pictures taken from a tripod.

- For the longitudinal axis, two long lines are shown to the left and right of the screen's center. They appear green when the camera is oriented correctly and red when it is slanted. For the transverse axis, two green double lines directly to the left and right of the picture's center indicate the starting point. When the camera is slanted they turn white and a short red line appears above and below.

Focus Peaking and Manual Focus Aid

These two displays are described in the 'Manual focusing' section on p. 214/215.

KEYLOCK

To completely safeguard against unintentional settings of the shutter speed, the aperture, and the exposure control mode, you can deactivate the function of both the top dial and the click wheel. When set to **On**, turning and pressing during recording mode will have no effect.

Setting the function

1. In the menu's **SETUP** section, select **Key Lock**, and
2. switch the function **On** or **Off**.

MEMORY CARD MANAGEMENT

When both of the Leica SL's memory card slots are occupied, you can select whether the photo image data is stored on both cards simultaneously or sequentially, i.e. first on one until its capacity limit is reached, and then on the other.

Setting the function

1. In the menu's **SETUP** section, select **Storage Backup**, and
2. switch the function **On** or **Off**.

On Photo image data is saved on both cards simultaneously

- In the top panel display, this is indicated by **1 2**.

Off Photo image data is saved on the card in slot 1 until its capacity is reached, and then on the card in slot 2.

- In the top panel display, this is indicated by **1 2**.

Notes:

- When using applications like Leica Image Shuttle® or Adobe Lightroom® and taking photos while the camera is connected to a computer using a USB cable, the recordings are saved on
 - both the card(s) and the computer when **Storage Backup** is set to **On**
 - only on a computer when **Storage Backup** is set to **Off**
- The card capacity display in the top panel reflects the menu setting: With **On**, it is less than with **Off** (due to simultaneous / sequential storage).
- Video image data is always stored as described for **Off**, i.e. regardless of the menu setting.
- This menu item can be assigned to the **FAVORITES** menu.

BASIC PHOTO SETTINGS

SWITCHING THE SENSOR FORMAT

The Leica SL is a standard 35mm format camera, i.e. its sensor size is approx. 24 x 36mm. You can limit the sensor area used to the APS-C format though, i.e. to approx. 15.7 x 23.6mm.

APS-C should be utilized whenever using lenses designed for this format.

Setting the function

1. In the menu's **IMAGE** section, select **Sensor Format**, and
2. in the submenu, the desired setting.

Notes:

- Using the smaller format with lenses designed for the 35mm format results in focal lengths that are effectively longer (by approx. 1.2x - the so-called 'crop factor'), and therefore also a reduced angle of view (approx. 66%).
- This function can be assigned to the **FAVORITES** menu.

ASPECT RATIO

You can select the aspect ratio to be used for photos, i.e. the relationship between the vertical and horizontal sides of the format.

Setting the function

1. In the menu's **IMAGE** section, select **Photo Aspect Ratio**, and
2. in the submenu, the desired setting.

Note:

This function can be assigned to the **FAVORITES** menu.

FILE FORMAT

Two file formats are available for recording the picture data: **DNG** and **JPG**.

You can select, whether your picture data

- a. is to be saved in only one of these formats, or
- b. simultaneously in both (i.e. two files are always created for each picture).

Setting the function

1. In the menu's **IMAGE** section, select **Photo File Format**, and
2. in the submenu the desired setting.

Notes:

- **DNG** (Digital Negative) is a standardized format used to save raw picture data.
- The displayed remaining number of pictures does not necessarily change after every picture. With JPEG files, this depends on the subject; very fine structures result in higher data volumes, homogeneous surfaces in lower volumes.
- This function can be assigned to the **FAVORITES** menu.

JPEG SETTINGS

Note:

The functions and settings described in the next three sections refer exclusively to pictures in the JPEG format. If the DNG file format is selected, these settings have no effect.

JPG resolution

If the JPEG format is selected, pictures can be taken with four different resolutions (numbers of pixels). This allows you to adjust the setting precisely to the intended use or to the available memory card capacity.

Setting the function

1. In the menu's **IMAGE** section, select **JPG Resolution**, and
2. in the submenu, the desired setting.

Notes:

- Raw data (DNG format) is always saved at the maximum resolution regardless of the settings for JPEG images.
- The effective resolution is subject to both the focal length and aspect ratio settings.
- This function can be assigned to the **FAVORITES** menu.

Contrast, saturation, sharpness

One of the many advantages of digital photography is that it is very easy to change critical properties of a picture, i.e. those that determine its character. With the Leica SL, you can influence three of the most important picture properties before you actually take the picture:

- The contrast, i.e. the difference between light and dark sections of the image, determines whether an image has a more "flat" or "brilliant" effect. As a consequence, the contrast can be influenced by increasing or reducing this difference.
- The color saturation determines whether the colors in the picture tend to appear as "pale" and pastel-like or "bright" and colorful. While the lighting and weather conditions (hazy/clear) are given as conditions for the picture, there is definite scope for influencing the reproduction here.
- Sharp reproduction – at least of the main subject – using the correct focusing is a prerequisite for a successful picture. In turn, the impression of a picture being in focus is to a great extent determined by the edge sharpness, i.e. by 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.

For all three picture properties, you can independently choose between five levels.

Setting the function

1. In the menu's **IMAGE** section, select **JPG Settings**.
2. in the submenu **Contrast**, **Saturation**, or **Sharpness**, and
3. in the respective submenus, the desired settings.

In the case of **Saturation**, the additional option **Monochrome** allows creating B/W pictures.

Note:

When using the tracking function (see p. 212), the displayed image is in color, even when **Monochrome** is set. The pictures will nevertheless be saved in B/W.

Working color space

The requirements in terms of color reproduction differ considerably for the various possible uses of digital picture files. Different color spaces have therefore been developed, such as the standard RGB (red/green/blue) that is perfectly adequate for simple printing. For more demanding image processing using the corresponding programs, e.g. for color correction, Adobe® RGB has become established as the standard in the relevant sectors. ECI is used in many cases for professional prepress work. The Leica SL allows you to select between these three color spaces.

Setting the function













1. In the menu's **IMAGE** section, select **JPG Settings**,
2. in the submenu **Color Management**, and
3. in the corresponding submenu, the desired setting.

Notes:

- If you want to have your prints produced by major photographic laboratories, mini labs, or Internet picture services, you should select the **sRGB** setting.
- The **Adobe RGB** and **ECI-rgb** settings are only recommended for professional image processing in color-calibrated working environments.


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, several presets, two settings for manual metering, and direct setting of the color temperature:

	Automatic white balance
	For outdoor pictures in sunlight
	For outdoor pictures with cloudy sky
	For outdoor pictures with the main subject in shadow
	For illumination with light bulbs
	For illumination with metal halide lamps
	e.g. for indoor pictures with (prevailing) light from fluorescent tubes with warm light color
	e.g. for indoor pictures with (prevailing) light from fluorescent tubes with cool light color
	For illumination with electronic flash
	for manual setting by measurement with selectable target point
	for manual setting by measurement
	For manual color temperature input ¹

¹ All color temperatures are specified in Kelvin.

Notes:

- If non-compatible flash units are used, the WB setting should be used.
- This function can be assigned to one of the soft keys for direct access, and also to the **FAVORITES** menu.

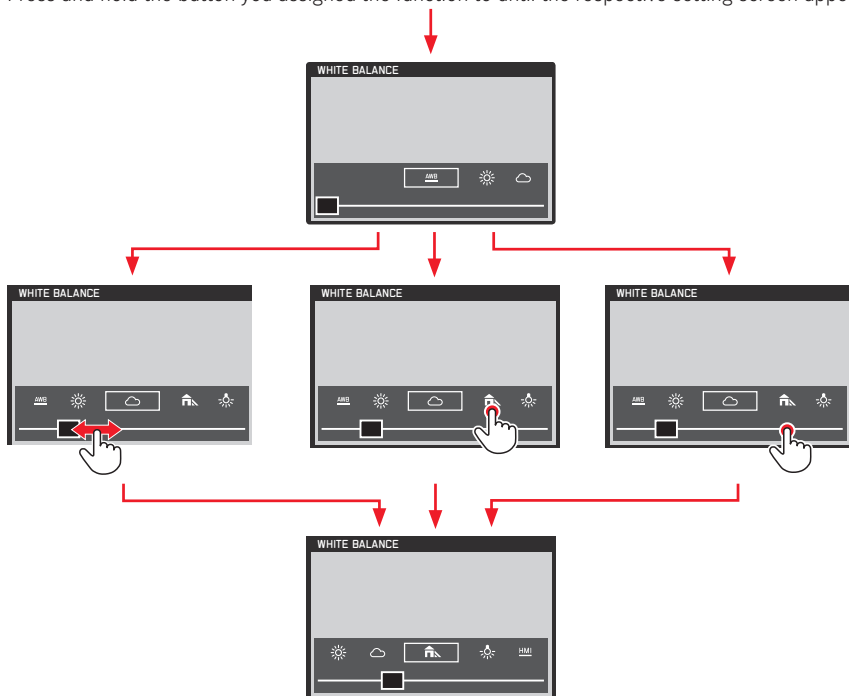
Automatic and fixed presets

Setting the function - using menu control

1. In the menu's **IMAGE** section, select **White Balance**, and
2. in the submenu, the desired setting.
 - The image's color is adjusted accordingly.
3. Save the setting by pressing the click wheel, the joystick, or the shutter release button.

Setting the function - using direct access with gesture control

Press and hold the button you assigned the function to until the respective setting screen appears.




Notes:

- The screens disappear again a few seconds after the last setting, i.e. settings must be made within this period of time. If you want to exit the screens earlier, press the click wheel, or the joystick, or the **BL** button, or the shutter release button. In any case, the respective settings are automatically saved.
- Even within gesture control, settings can be done with the click wheel or the joystick.

Manual setting by metering

The Leica SL offers you a choice between two such modes that allow operation matched to different situations/subjects.

 **Graycard** is suited best for subjects in which you can clearly identify a neutral grey or pure white area. If not, or if you want to base your metering on an off-center detail, you can utilize

 **Graycard Live View**.

Setting the function

1. In the menu's **IMAGE** section, select **White Balance**,
2. in the submenu, the desired **Graycard** setting.

These two steps can also be performed using gesture control, exactly as described for automatic and fixed presets on p. 199.

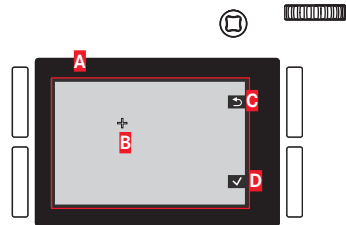
The following steps differ, depending on the selected **Graycard** setting.

When  **Graycard** is selected:

3. Call up the respective screen by pressing the click wheel or the joystick.
 - The screen contains an area in the center outlined in yellow – this indicates the metering zone.
 If you wish to exit this screen again without the metering function, press the **TR** button briefly
4. Aim the metering zone at a neutrally grey or pure white area, making sure it completely fills the frame.
5. Press the shutter release button, or the **BR**, or **FN** button to save the metered setting.


When  **Graycard Live View** is selected:

3. Call up the respective screen by pressing the click wheel or the joystick inwards.



- A** Image based on an automatic white balance setting
- B** Cross hairs indicating the metering area
- C** Button function indication, Return to previous display
- D** Button function indication, Save metered value

4. Press the joystick in the desired direction to move the cross hairs to the detail you want the new white balance setting to be based on.
5. Press the click wheel or the joystick inwards.
 - The image's color is adjusted accordingly.
6. Either save this setting by pressing the shutter release button to the 1st pressure point, or the **BR** button, or repeat the metering by performing steps 3-6 again.

Using direct access, calling up the  **Graycard Live View** screen and operating the function differ slightly between photo and video preview modes.

During photo mode

Press the button the function is assigned to, e.g. the **FN** button in the camera's default condition.

During video preview mode

Press the joystick down. Pressing it up confirms the setting.

Notes:

- A value set in this way remains saved for and will be used for all pictures until it is superseded by a new metered value or you use one of the other white balance settings.
- In parallel to a saved white balance setting, the corresponding picture is also always saved, i.e. in addition to the unchanged original picture.
- This function can be assigned to the **FAVORITES** menu.

Direct color temperature setting

You can directly set values between 2000 and 11500. This provides you with a broad scope, covering most of the color temperatures that can occur in practice and within which you can adapt the color reproduction very sensitively to the existing light color and/or your personal preferences.

Setting the function

1. In the menu's **IMAGE** section, select **White Balance**, and
2. in the submenu, **K**.
3. Press the click wheel or the joystick inwards to call up the respective submenu, and
4. select the desired value by turning the click wheel or pressing the joystick to the left or right.
 - The displayed image's color hue changes accordingly.
5. Confirm your setting by pressing the click wheel, the joystick, or the shutter release button.

Steps 2. and 4. can also be performed using gesture control, basically as described for automatic and fixed presets on p. 199.

ISO SENSITIVITY

The ISO setting allows the shutter speed/aperture value to be adjusted to meet the requirements of the relevant situation. Next to the fixed settings, an automatic function is also available (see also the following section).

Setting the function - using menu control

1. In the menu's **IMAGE** section, select **ISO**, and
2. in the submenu, the desired setting.

Setting the function - using gesture control (with direct access)

This is done basically as described for **White Balance** on p. 199.

Auto ISO Setting

When **ISO** is set to **Auto**, the camera automatically adjusts the sensitivity to match the ambient brightness. However, when using the function, it is also possible to specify priorities, for example for compositional reasons. This enables you to limit the range of sensitivities used (e.g. to control noise) and also to set the shutter speed above which the automatic increase in sensitivity is activated (instead of using continually slower shutter speeds, e.g. to prevent blurred pictures of moving subjects).

Setting the functions

1. In the menu's **SETUP** section, select **Auto ISO Settings**,
2. in the submenu **Auto ISO Photo**, and
3. in the next submenu **Maximum ISO**, **Maximum Exposure Time** or **Floating ISO**, and
4. select the desired settings in the respective submenus, or switch the **Floating ISO** function **On** or **Off**.

Floating ISO is intended for use with zoom lenses with varying full stops. When set to **DN**, it can compensate their changing effective apertures while zooming in the following situations:

- in manual exposure control mode
- ISO is set to one of the values, i.e. not to **Auto ISO**

Notes:

- **Maximum ISO** and **Maximum Exposure Time** are only effective when **ISO** is set to **Auto ISO**.
- **1/f** results in the slowest possible shutter speeds based on the rule of thumb for free-handed, blur-free pictures, e.g. $\frac{1}{1000}$ with a focal length of 100mm. **1/2f** is principally the same, except that it results in twice as fast shutter speeds whenever possible, e.g. for even more safety against blurred pictures.

IMAGE STABILIZATION

The less light there is when taking a picture, the slower the shutter speed has to be in order to achieve the right exposure. This can quickly lead to shutter speeds so long that camera shake, and as a result image blurring becomes a problem. The Leica SL's lenses are equipped with an optical stabilization system that can compensate for this up to a certain degree, i.e. the equivalent of up to approx. three shutter speed steps. This enables you to create sharp pictures with shutter speeds slower than what would normally be feasible while holding a camera by hand. Video recordings also benefit from a considerably steadier image. Keep in mind though, that this system cannot prevent blurred images caused by subject movements in conjunction with inappropriate, i.e. too slow shutter speeds.

Setting the function

1. In the menu's **SETUP** section, select **Optical Image Stabilization** and
2. in the submenu, **On** or **Off**.

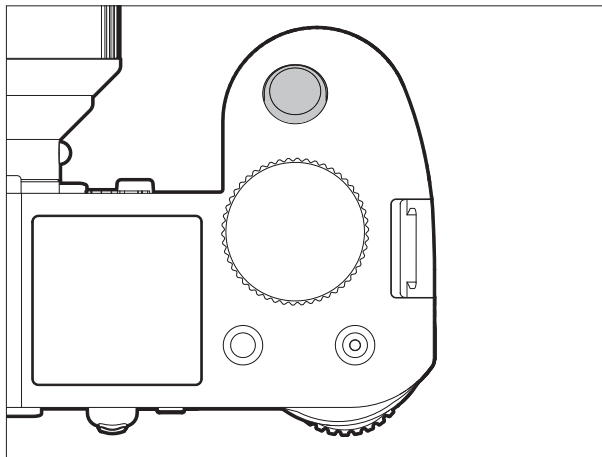
When set to **on**, the camera automatically selects the appropriate type of operation. Usually, this will mean compensation in all directions. When only a horizontal movement in one direction is registered though, e.g. when 'following' a moving subject during an exposure to 'freeze' it in front of the background, only vertical compensation takes place.

Note:

This function can be assigned to one of the soft keys for direct access.

PHOTO RECORDING MODE

THE SHUTTER RELEASE BUTTON



The shutter release button works in two stages:

1. When the camera is in stand-by mode (see p. 188), briefly tapping / lightly pressing it activates the viewfinder, monitor, and top panel displays as well as both automatic distance setting / Autofocus (if set) and exposure metering and control by saving the metered exposure value for spot and center-weighted metering in **A**, **T**, and **F** modes (see p. 220/221).
When using autofocus in **AFs** mode (see p. 208) the focus setting is saved at the same time.
Letting go of the button enables new measurements to be carried out.

Notes:

- If review mode was previously set (see p. 242), tapping the button switches the camera back to recording mode, if it was previously in standby mode (see p. 188), it is reactivated, i.e. metering systems and displays are turned on.
 - The shutter release button is locked
 - if the internal buffer memory is temporarily full, e.g. after a series of pictures (also applies if no memory card is inserted), or
 - if the memory card(s) inserted is/are full.
 - As an alternative to the shutter release button, the joystick can also be used to save exposure and automatic focusing settings (provided the **AE/AF Lock Button** function is set accordingly).
2. Pressing the button all the way down takes a picture, or starts any preselected self-timer delay time, or starts a preselected bracketing or interval series (see p. 240/226/238).

Locking the shutter release and video recording buttons

To prevent taking photos during video preview and recording, or to prevent starting a video during photo mode accidentally, both button functions can be deactivated during the above described modes.

Setting the function

1. In the menu's **SETUP** section, select **Customize Control**.
2. in the submenu, select **Mode Lock**, and
3. switch the function **On** or **Off**.

Recording mode	Button pressed (shutter release button pressed all the way)	Function (When set to OFF)	Function (When set to ON)
Photo mode	Shutter release button	Takes a picture	Takes a picture
	Video button	Starts video recording	no function
Video preview mode	Shutter release button	Takes a picture	no function
	Video button	Starts video recording	Starts video recording
During video recording	Shutter release button	Takes a picture*	no function
	Video button	Stops video recording	Stops video recording

* not available for some video resolutions:

- 4K video (4096 x 2160, 3840 x 2160)
- high speed recording (100fps, 120fps)
- 24p recording

Notes:

- This setting does not deactivate the shutter release button's function when briefly tapping / lightly pressing it (see previous section).
- This setting does not affect the buttons' functions when pressed during menu control.
- This menu item can be assigned to one of the soft keys for direct access.

Serial exposures

You can not only use the Leica SL to take single pictures but also to produce a series of pictures.

Setting and using the function

1. In the menu's **CAMERA** section, select **Drive Mode**, and
2. in the submenu, **Continuous Low Speed**, **Continuous Medium Speed** or **Continuous High Speed**.
3. Keep the shutter release button pressed all the way down.
 - The camera takes pictures until the capacity of the buffer memory or the memory card(s) is depleted.

Notes:

- If the shutter release button is immediately released again after pressing it, only a single picture will be taken regardless of the menu setting. The camera's buffer memory only allows a limited number of pictures to be taken in a series at the selected frequency. When the buffer capacity limit is reached, the frequency is reduced.
- Regardless of how many pictures have been taken in a series, both review modes (see p. 242) initially show the last picture in the series or the last picture in the series saved on the currently active card (see p. 243), if not all of the pictures in the series have been transferred from the internal buffer memory to the relevant card yet. Details of how to select the other pictures in the series and further options in the review modes are described in the corresponding sections starting on p. 242.

- Using the **Continuous** modes interacts with focusing operation, as well as with the exposure and automatic White Balance settings in the following ways/situations (see the respective chapters for details on the mentioned modes):
 - **Continuous Low Speed** and **Continuous Medium Speed**
With **AFs**, **AFC**, and **MF**, the exposure and White Balance settings are determined individually for every single shot, with **AFs** and **AFC** focusing is also performed.
 - **Continuous High Speed**
 - With **AFC**, same as above
 - With **AFs** and **MF**, exposure and White Balance settings determined for the first shot are used for all following shots, with **AFs**, this includes the focus setting.

FOCUSING

Focusing modes

You can choose between one of two automatic /Autofocus modes, or focus manually.

Setting the function

1. In the menu's **CAMERA** section, select **Focus Mode**, and
2. in the submenu, the desired function.

Note:

This menu item can be assigned to one of the soft keys for direct access, and also to the **FAVORITES** menu.

Automatic focusing / Autofocus modes

In both of the autofocus modes, the setting procedure is started by pressing the shutter release button to the 1st pressure point.

- The part of the subject you aim at with the AF frame is automatically focused.

AFs (single) / Focus priority

- The focusing process is stopped and the setting saved for as long as the shutter button is kept pressed.

If focusing is not successful, the shutter button cannot be pressed all the way down, i.e. a picture cannot be taken without something being correctly focused.

AFc (continuous) / Shutter release priority

- Focusing continues as long as the shutter button is kept pressed, i.e. during this time, the setting is adjusted whenever the metering system detects other objects at other distances, or the distance from the camera to the part of the subject you are aiming at changes.

The shutter button can always be pressed all the way down, i.e. even if no part of the subject is in focus, a picture can be taken at any time.

The only way to save a setting in this mode is to press the joystick inwards (provided the **AE/AF Lock Button** function is set accordingly, see p. 222).

In both modes, the focusing status is displayed as follows:

In case of successful focusing:

- The color of the AF frame changes to green.
- An acoustic signal is generated (if selected).

In case automatic focusing is not successful/possible:

- The color of the AF frame changes to red.

Notes:

- When the **Touch AF** function is activated (see p. 213), automatic focusing can also be started by touching the desired part of the subject in the monitor image.
- When the **AE/AF Lock Button** function is set accordingly (see 222), automatic focusing can also be started by pressing the joystick inwards.
- The shutter button saves the AF setting along with the exposure setting, except in the case of certain **AE/AF Lock Button** function settings (see p. 223).
- The AF metering system works passively based on contrasts, i.e. differences between light/dark in the part of the subject registered by the selected AF metering mode. Thus, it depends on the subject having a certain minimum brightness. Therefore, in certain situations the AF metering system is unable to focus and set the distance correctly, e.g. when the subject registered by the selected AF metering mode
 - is not sufficiently illuminated (see next section), and/or
 - does not incorporate sufficiently differing brightness levels, and/or
 - is outside the available setting range.

Focusing range limitation

With most lenses, focusing gets faster as the focused distances get longer. This is due to the fact that the lenses' optical systems have to be moved further for shorter distances. Therefore, if you know you will not need to focus on shorter distances, you can speed up AF operation by excluding extremely short distances from the focusing range.

Setting the function

1. In the menu's **CAMERA** section, select **Focus Limit (Macro)**, and
2. switch the function **On** or **Off**.

Notes:

- The distance/focusing limit differs from lens to lens (see the respective instructions).
- This function is not available with certain Leica SL lenses (see the respective instructions). It is not available for other types of lenses, e.g. using adapters.
- When the lens is changed while the camera is switched on, an **On** setting in **Focus Limit (Macro)** is reset to **Off**.
- This menu item can be assigned to one of the soft keys for direct access, and also to the **FAVORITES** menu.

AF assist lamp

The built-in AF auxiliary lamp extends the operating range of the AF system in poor lighting conditions. If the function is switched on, the lamp will light up in such conditions when AF operation is started by pressing the shutter release button or the joystick (if set accordingly, see p. 223).

The lamp has an operating range of approx. 1 - 3m / 3-9 feet.

Setting the function

1. In the menu's **SETUP** section, select **AF Setup**,
2. in the submenu, **AF Assist Lamp**, and
3. switch the function **On** or **Off**.

Note:

It is advisable to remove an attached lens hood because it may obstruct the lamp.

Autofocus metering and operating modes

To fine-tune the AF system to different subjects, situations, and picture composition ideas, you can choose between three metering methods.

Setting the function

1. In the menu's **CAMERA** section, select **AF Field Size**, and
2. in the submenu, **1 Point**, **Field**, or **Zone**.

Single field metering [1 Point]

Autofocusing is based on a single metering field. Originally, i.e. in its default position, this field is in the center of the image screen. Due to its small size, and because it can be moved freely within the image screen, it is the method of choice to base the AF setting on small subject details, including those off-center.

If you wish to move the metering field, this must be done before pressing the shutter button, i.e. before starting AF operation. Moving the metering field can be done using either button or touch control.

Button control

Press the joystick in the desired direction (also to move the metering field back to its central position).

Touch control

1. In the menu's **SETUP** section, select **Customize Control**,
2. in the submenu, **Touch AF**, and
3. switch the function **On**.
4. Reactivate recording mode, and
5. 'drag and drop' the metering frame to the desired position in the monitor image.

To return the metering frame to its central position:

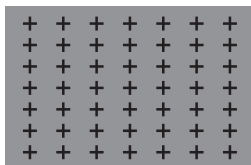
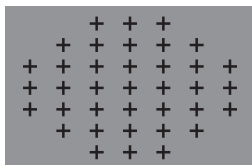
Double tap the monitor at any location.

Note:

Whenever the camera is turned off and back on, the metering field will return to its central position.

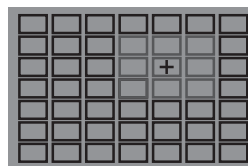
Multi-field metering [Field]

This metering method registers subject details in a total of 37 or 49 fields, thus offering maximum snapshot suitability. Even so, you can select whether to use 37 or 49 fields to match the registered area to the subject and/or the situation.

**9 field metering [Zone]**

This metering method registers subject details in a central array consisting of a 3 by 3 field matrix. It combines a certain degree of snapshot suitability with the possibility to purposely target larger subjects.

(When **AF Mode** is set to **Static** and the **AF Field Size** is set to **Zone**)

**Setting the function**

1. In the menu's **SETUP** section, select **AF Setup**,
2. in the submenu, **AF Steps Visible**, and
3. switch the function **On** or **Off**.

Next to the autofocus metering modes described on the previous pages, there are another three modes available that are designed for specific subjects and/or situations.

Setting the function

1. In the menu's **CAMERA** section, select **AF Mode**, and
2. in the submenu, **Static**, **Dynamic (Tracking)**, or **Auto (Face)**.

Note:

This menu item can be assigned to one of the soft keys for direct access, and also to the **FAVORITES** menu.

Static

With this mode, the focus setting is automatically locked on the subject registered in the metering frame.

Dynamic (Tracking)

This mode is a variation of Single field metering, in which the focus metering frame is locked to the targeted subject. This results in the focus setting being adjusted whenever this subject changes its distance to the camera, regardless of the position it moves to within the image frame and regardless of whether **AFc** or **AFe** is set. As with Single field metering, you can freely position the frame (see p. 210).

Notes:

- The tracking function stops when the shutter button is released before taking the picture. In such a situation, the metering frame remains at the last position.
- When using the tracking function, the displayed image is in color, even when **Monochrome** is set in the **JPG Settings' Saturation** submenu (see p. 196). The pictures will nevertheless be saved in B/W.

Auto (Face detection)

In this mode, the Leica SL automatically detects faces in the picture and focuses on the one at the shortest distance. If no faces are detected, multi-field metering is used.

Touch-controlled autofocus

In this mode you can start AF operation by tapping on the desired subject anywhere on the monitor image.

Setting the function

1. In the menu's **SETUP** section, select **Customize Control**,
 2. in the submenu, **Touch AF**, and
 3. switch the function **On** or **Off**.
- In this mode, the focusing status is displayed as follows:
 - White: Monitor has not been tapped yet
 - Green: Monitor tapped, selected subject is successfully focused
 - Red: Monitor tapped, but selected subject cannot be focused (turns white again shortly after focusing attempt ends)

Notes:

- When **AF Mode** is set to **Auto (Face)**, **Touch AF** does not work.
- With this mode, AF operation can be started with the shutter release button and the joystick.
- The metering frame is always located at the last position it was placed, regardless of where it may have been placed using one of the 1 Point metering mode variants.
- When **Face** is **On**, the AF metering modes **1 Point** and **Field** are not available, the respective lines in the submenu are grayed out.

Manual focusing - MF

For certain subjects and situations, it can be beneficial to set the focus yourself, rather than using autofocus. For example, if you want to use the same setting for several pictures and it would be more work to use metering memory lock, or if you want to keep the setting at infinity for landscape pictures, or if poor, i.e. very dark, lighting conditions do not allow any, or only slower AF operation. To focus, turn the distance setting ring on the lens until your subject or the most important part of the subject is shown sharply

Notes:

- When the shutter release button is tapped/lightly pressed, the top display shows the set distance as well as the front and rear limits of the resulting depth of field range (see p. 285).
- Even if **Focus Mode** is set to **MF**, you can use the joystick at any time to start AF operation (provided, the **AE/AF Lock Button** function is set accordingly, see p. 222).
- Even if **Focus Mode** is set to **AFs** or **AFc**, you can focus manually at any time, i.e. override the AF setting.

Manual focusing assistants

To make it easier to achieve precise settings or to increase the precision of a setting, the Leica SL offers two features:

- The enlarged display of a middle section.
Explanation: The larger the details of the subject are shown, the better you can assess their sharpness and the more accurately you can focus.
- The identification of sharply focused subjects (peaking)
You can have the edges of sharply focused subjects marked in color so making it is easier to determine the optimal setting. Four colors are available for the peaking display to allow it to be matched to different subjects/backgrounds.

Setting the magnifying function

1. In the menu's **SETUP** section, select **Live View**.
2. in the submenu, **Manual Focus Aid**, and
3. switch the function **On** or **Off**.

When the function is switched on, you can call up magnifications of a central section of the image frame by pressing the **BL** button.

The first press results in a 4x view, the second press in a 6x view, the third press brings back the unenlarged view.

You can move the enlarged section using the joystick.

Setting the peaking function

1. In the menu's **SETUP** section, select **Live View**.
2. in the submenu, **Focus Peaking**, and
3. switch the function **On** or **Off**.

Setting the peaking color

1. In the menu's **SETUP** section, select **Capture Assistants**.
2. in the submenu, **Focus Peaking**, and
3. in the respective submenu, the desired color.

Calling up the peaking function

Press the **BR** button (see also p. 182).

When the function is switched on, all subject details in focus are identified by their edges being highlighted in the selected color.

EXPOSURE METERING AND CONTROL

Exposure metering methods

To adjust to the prevailing lighting conditions, the situation, or your working method and compositional ideas, the Leica SL provides you with three exposure metering methods.

Setting the function

1. In the menu's **CAMERA** section, select **Exposure Metering**, and
2. in the submenu, the desired setting.

Note:

This menu item can be assigned to one of the soft keys for direct access, and also to the **FAVORITES** menu.

Multi-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 use in conjunction with automatic program 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 particular parts of the subject, while simultaneously taking account of 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 small or 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

In order to facilitate optimal adaptation to the respective subject or to your preferred way of working, the Leica SL provides you with the four exposure control modes automatic program, aperture priority, and shutter speed priority, and fully manual setting.

Selecting modes P, A, T, M

Setting the function

1. While in recording mode, press the click wheel, and
 - The usual top panel screen display is replaced by the (large) letter representing the current exposure mode. The arrows to the left and right indicate how to change the mode.
2. turn it to the right or left to select the desired mode.
 - Approx. 2s after the last turn of the click wheel, the selected mode is set automatically.
3. To set the selected mode immediately, press the click wheel or the shutter release button.

Note:

Depending on the prevailing light conditions, the brightness of the displayed image can differ from that of the actual pictures taken. Particularly for long exposures on dark subjects, it appears considerably darker than the - correctly exposed - picture.

Wheel operation during recording mode

In the four exposure control modes, the click wheel and the top dial operate as follows:

	Program mode (see p. 220)	Aperture priority mode (see p. 221)	Shutter priority mode (see p. 221)	Manual mode (see p. 225)
Click wheel	Changes the automatically preset shutter speed/aperture combinations (Program shift, see p. 220)	Changes the aperture	No function	Changes the aperture
Top dial	No function	No function	Changes the shutter speed	Changes the shutter speed

Operation of both the click wheel and the top dial can be customized in two ways,

- their default setting directions can be reversed, and
- their setting steps can be adjusted.

Setting the function

1. In the menu's **SETUP** section, select **Customize Control**.
2. in the submenu, **Rear Wheel Direction** or **Front Wheel Direction**, and
3. in the respective submenu, the desired function.

Front Wheel Direction

Stop Down →: Turning clockwise increases the shutter speed, turning counterclockwise decreases it.

← Stop Down: Turning clockwise decreases the shutter speed, turning counterclockwise increases it.

Rear Wheel Direction

Stop Down →: Turning right decreases the aperture (higher values), turning left increases it (lower values).

← Stop Down: Turning right increases the aperture (lower values), turning left decreases it (higher values).

Note:

These settings have no effect on the click wheel's operation during menu control. They have no effect whatsoever when **Key Lock** in menu's **SETUP** section is set to **On**. (see p. 192)

Setting steps

You can select between increments of ½ EV or ⅓EV. This allows a choice between stronger or subtler effects of your respective adjustments.

Setting the function

1. In the menu's **SETUP** section, select **EV Increment**, and
2. in the submenu, the desired setting.

Note:

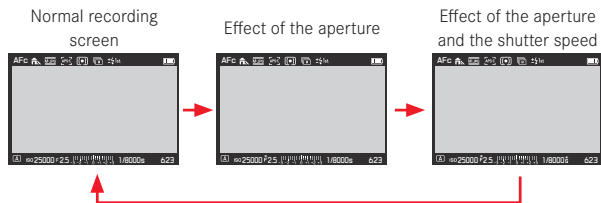
This setting is also valid for exposure compensation (see p. 224) and exposure bracketing (see p. 226).

EXPOSURE SIMULATION/DEPTH OF FIELD CONTROL

This function simulates the effects of the aperture and shutter speed settings, enabling you to judge the results before taking a picture.

Setting the function

1. Press the **FN** button halfway during recording mode.
 - Every time you press the **FN** button, the display switches. Icons indicating the respective setting appear above the aperture value and/or shutter speed values.



Notes:

- You can activate autofocus (see p. 208) by pressing the shutter release button while in exposure simulation mode.
- Exposure simulation mode is canceled if the camera is turned off.

AUTOMATIC PROGRAM MODE - P

For fast, fully automatic photography. The exposure is controlled by an automatic shutter speed and aperture setting.

Taking a picture in this mode

1. Select the **A** mode using the click wheel (see p. 217), and
2. press the shutter release button to the 1st pressure point.

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

3. Push the shutter release button all the way down to take the photo.

If not, you can change the value pair before taking the picture.

CHANGING THE AUTOMATICALLY SET SHUTTER SPEED/ APERTURE COMBINATION (PROGRAM SHIFT)

Changing the preset values using the Shift function combines the security and speed of fully automatic exposure control with the freedom to adjust the speed/aperture combination selected by the camera to your own preferences at any time.

Setting the function

For faster shutter speeds, e.g. for sports shots, turn the click wheel to the right, for larger depth of field, e.g. for landscape shots, turn it to the left (provided you are prepared to accept the slower shutter speeds that this entails).

- Shifted value pairs are marked by an **S** next to the **A**.

The overall exposure, i.e. the brightness of the image, remains unchanged.

Notes:

- The adjustment range is limited to guarantee correct exposure.
- To prevent accidental use, after each picture, and also if exposure metering is automatically turned off after 12s, the values revert to those set by the camera.

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 the critical compositional element.

With lower aperture values, you can reduce the depth of field range, for example to let a face 'stand out' in front of an unimportant or distracting background in a portrait or, conversely, you can use higher aperture values to increase the depth of field range so that everything from the foreground to the background is in focus in a landscape shot.

Taking a picture in this mode

1. Select the **A** mode using the click wheel (see p. 217),
2. set the desired aperture value with the click wheel, and
3. press the shutter release button to the 1st pressure point.

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

4. Push the shutter release button all the way down to take the photo.

If not, you can change the aperture value before taking the picture.

SHUTTER SPEED PRIORITY MODE - T

Shutter speed priority mode sets the exposure automatically according to the manually selected shutter speed. Therefore, it is particularly suitable for pictures of moving subjects, where the sharpness of the movement depicted is the critical compositional element.

For example, with fast shutter speeds you can avoid undesirable blurring of the movement, i.e. "freeze" your subject or, conversely, you can use slower shutter speeds to express the dynamic nature of the movement with a deliberate "blur effect".

Taking a picture in this mode

1. Select the **T** mode using click wheel (see p. 217).
2. set the desired shutter speed with the top dial, and
3. press the shutter release button to the 1st pressure point.

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

4. Push the shutter release button all the way down to take the photo.

If not, you can change the shutter speed before taking 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 such cases, the metering memory lock function - in **P**, **T** and **A** exposure modes, and with **AF** 1-field and spot metering modes - enables the main subject to be metered first and the relevant settings retained until you have determined your final trimming and take the picture.

When set to factory settings, both functions are locked with the shutter release button. You can, however, divide the lock functions between the shutter release button and the joystick, or carry out both with the joystick.

Using the shutter release button

1. Aim the AF frame at the part of your subject to which you want to adjust the focus and exposure.
2. Press the shutter release button to the first pressure point to set and save the focus and exposure.
3. Continue holding the shutter release button half way and move the camera to determine the final trimming.
4. Push the shutter release button all the way down to take the photo.

The lock function is canceled as whenever you let go of the shutter button.

Using the joystick

Setting the function:

- In the menu's **SETUP** section, select **Customize Control**, and
- in the submenu **AE/AF Lock Button**.
 - Another submenu appears.
- In this submenu, select for which type of focusing mode you want to use the joystick, i.e. in an autofocus mode - **AF Mode**, or with manual setting - **MF Mode**.
 - Yet another submenu appears.
- In this submenu, select the locking function/s you wish to perform with the joystick (and therefore not with the shutter release button).

Locking functions in the **AF Mode** settings

	Shutter release button	Joystick
AF-L	Exposure	Autofocus setting
AE-L	Autofocus setting	Exposure
AF-L + AE-L	None	Both

Locking functions in the **MF Mode** settings

Even if **Focus Mode** is set to **MF**, pressing the joystick not only starts autofocus operation in four of the five settings, but also locks the autofocus settings in the ones involving **AFs**.

	Shutter release button	Joystick
AFs	Exposure	Autofocus setting
AFs + AE-L	None	Both
AFc	Exposure	Autofocus setting
AFc + AE-L	None	Both
AE-L	None	Exposure

Note:

With both **AF Mode** and **MF Mode**: Just like with the shutter release button, pressing the joystick also starts the respective metering and setting functions.

Taking a picture is principally the same procedure as explained on the previous page, except for pressing the joystick instead of the shutter button, or additionally in the respective cases.

EXPOSURE COMPENSATION

Some subjects are made up predominantly of excessively light or dark surfaces, for example large areas of snow or a frame-filling black steam locomotive. In **P**, **S**, and **A** exposure modes, it may be more useful in such cases to set an appropriate exposure compensation instead of using metering memory lock each time. The same applies if you want to ensure an identical exposure for several pictures.

Setting the function - using menu control

1. In the menu's **CAMERA** section, select **Exposure Compensation**, and
2. in the submenu, the desired setting.
3. Save your setting by pressing the click wheel or the joystick.

Setting the function - using direct access (with gesture control)

This is done basically as described for **White Balance** on p. 199.

Notes:

- A set compensation remains active until it is reset to **0**, i.e. even after any number of pictures and even after turning off the camera.
- This function is subject to the **EV Increment** setting, (see p. 218). When it is changed, a set compensation is canceled, i.e. automatically reset to **0**.
- This menu item can be assigned to one of the soft keys for direct access, and also to the **FAVORITES** menu.

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 trimming have an absolutely identical exposure, then you can set the shutter speed and aperture manually.

Taking a picture in this mode

1. Select the **M** mode using the click wheel (see p. 217).
2. Press the shutter release button to the 1st pressure point.
3. Set desired shutter speed with the top dial and the desired aperture with the click wheel.
 - The resulting exposure is indicated by the upper part of the light balance scale:
 - only central mark lit up white: Correct exposure
 - White marks to the left or right of the central mark:
Under- or overexposure of approximately the amount displayed (in $\frac{1}{3}$ EV steps, EV = exposure value)
 - Red marks to the left or right of the central mark:
Under- or overexposure by more than ± 3 EV
4. Push the shutter release button all the way down to take the photo.

Note:

For longer exposures than 60s, use the **B** setting, which is available by turning the top dial counterclockwise beyond the **60s** setting. With **B**, the shutter remains open as long as you keep the shutter button fully pressed.

AUTOMATIC EXPOSURE BRACKETING

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

Setting the function

1. In the menu's **CAMERA** section, select **Drive Mode**, and
2. in the submenu, **Exposure Bracketing**.
3. Back in the **CAMERA** section, select **Exposure Bracketing** this time,
4. in the submenu **Frames**, and
5. in that submenu the number of frames the intended bracketing series is supposed to consist of.

The difference between the exposures - steps of 1, 2, or 3EV are available - must also be set. This is done in the **Aperture Stops** submenu, exactly the same way as described in steps 4 and 5.

The **Exposure Bracketing** submenu mentioned above in step 3 contains two further items: **Automatic** and **JPG-HDR**. In **Automatic**, you can select how the set bracketing exposure series is executed, i.e. either by pressing the shutter release button just once - **On**, or for each exposure separately - **Off**, e.g. to match the time between the exposures to changing lighting.


Setting the function

1. In the menu's **CAMERA** section, select **Exposure Bracketing**,
2. select **Automatic**, and
3. switch the function **On** or **Off**.


JPG-HDR is a function (available only for the JPEG file format, see p. 195) that creates one picture with an extended dynamic range, i.e. displaying definition in both very bright and very dark parts of the subject, by automatically combining 3 exposures.

Setting the function

1. In the menu's **CAMERA** section, select **Exposure Bracketing**,
2. select **JPG-HDR**, and
3. switch the function **On** or **Off**.

Whenever a bracketing series is set, it is indicated by  in the screen header.

Notes:

- Depending on the exposure mode, the graduations are produced by changing the shutter speed (**T/M**) or the aperture (**A**), or both (**P**).
- The sequence of the pictures is: underexposure/correct exposure/overexposure.
- Depending on the available shutter speed/aperture combination, the working range of the automatic bracketing function may be limited.
- The bracketing function remains active until it is reset to , i.e. even after any number of pictures and even after turning off the camera.
- If an exposure compensation is set at the same time, the starting point of the bracketing series is 'offset' by the compensation value.
- Bracketing is not available if an Interval series is set (see p. 238).
- This menu item can be assigned to one of the soft keys for direct access, and also to the **FAVORITES** menu.


FLASH PHOTOGRAPHY

The camera determines the necessary flash power by firing one or more ranging flashes, fractions of a second before taking the actual picture. Immediately after this, at the start of exposure, the main flash is fired. All factors that influence the exposure (such as filters and changes to the aperture setting) are automatically taken into account.

Compatible flash units

The following flash units can be used with the camera. They facilitate TTL flash metering and, depending on the configuration, a varying number of the functions described in these instructions.

- The Leica SF 26 system flash unit. It is extremely easy to operate.
- Other Leica system flash units, with the exception of the Leica SF 20. Other commercially available attachable flash units with standard flash foot and positive center contact¹, and fired by the center contact (X contact) can also be used. We recommend the use of modern thyristor-controlled electronic flash units.

¹If flash units not specially designed for the camera are used and do not automatically adjust the white balance on the camera, the  **Flash** setting should be used (see p. 198).

ATTACHING A FLASH UNIT

1. Turn off the camera and the flash unit
2. Pull off the accessory shoe cover towards the rear
3. 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 since changes in the position of the flash shoe could disrupt the required contacts, thus causing malfunctions.

The flash unit should be set to **TTL** mode to allow automatic control by the camera. When set to **A**, flash exposures must be controlled by manually setting an appropriate aperture on both camera and flash unit covering at least the subject distance. When set to **M**, the flash exposure must be controlled by manually setting the aperture on both camera and flash unit that matches the subject distance and/or by setting a correspondingly reduced power output level.

Notes:

- The flash unit must also be turned on, i.e. ready to use, otherwise there may be incorrect exposures and error messages on the camera.
- This menu item can be assigned to the **FAVORITES** menu.

SYNCHRONIZATION TIME

Flash photographs are illuminated by two light sources, the available ambient 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 image field.

The conventional flash firing point at the beginning of the exposure can lead to apparent contradictions, e.g. a vehicle being "overtaken" by the light trail from its own tail lights.

The Leica SL allows you to choose between this conventional flash firing point and the end of the exposure:

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.

Setting the function

1. In the menu's **CAMERA** section, select **Flash Settings**.
2. in the submenu **Flash Sync**, and
3. in the corresponding submenu, the desired setting.

Notes:

- The faster the used shutter speed is and/or the slower the subject moves, the less difference there is between the two flash firing points.
- This menu item can be assigned to the **FAVORITES** menu.
- Do not use longer synchro cables than of 3m / 10 feet or more.

SELECTING THE SYNC SPEED RANGE

The Leica SL allows you to limit the shutter speed range used in the automatic program and aperture priority exposure modes, e.g. to suit your picture composition ideas. You can choose between two automatic and several manual settings.

Setting the function

1. In the menu's **CAMERA** section, select **Flash Settings**,
2. in the submenu, **Auto slow sync**, and
3. in the corresponding submenu, either one of the two automatic settings - **1/2f min. 1/60 s** or **1/f min. 1/60 s**, or the desired slowest shutter speed.

Notes:

- **1/f min. 1/60 s** results in the slowest possible shutter speeds based on the rule of thumb for free-handed, blur-free pictures, e.g. $\frac{1}{1000}$ s with a focal length of 100mm. On the other hand, this setting rules out slower speeds than $\frac{1}{60}$ s all together, i.e. even when using shorter focal lengths than 60mm. **1/2f min. 1/60 s** is principally the same, except that it results in twice as fast shutter speeds whenever possible, e.g. for even more safety against blurred pictures.
- This menu item can be assigned to the **FAVORITES** menu.

FLASH EXPOSURE COMPENSATION

This function can be used to selectively reduce or strengthen the flash exposure regardless of the exposure of the 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.

Setting the function

1. In the menu's **CAMERA** section, select **Flash Settings**,
2. in the submenu **Flash Exp. Compensation**, and
3. in the corresponding submenu, the desired setting.

Notes:

- **Flash Exp. Compensation** is not available when flash units are attached that have their own compensation setting feature, e.g. the Leica SF 58.
- Brighter flash illumination selected using a positive compensation requires a higher flash power, and vice versa. Therefore, flash exposure compensation has a more or less significant impact on the flash range: A positive compensation reduces the range, while a negative compensation increases it.
- A compensation setting remains active until it is reset to 0, i.e. after any number of pictures and even after turning off the camera.
- This function is subject to the **EV Increment** setting, (see p. 218). When it is changed, a set compensation is canceled, i.e. automatically reset to 0.
- This menu item can be assigned to the **FAVORITES** menu.

VIDEO RECORDING

You can also use this camera to produce video recordings. The following settings are available/necessary:

File format

Setting the function

1. In the menu's **IMAGE** section, select **Video File Format**, and
2. in the submenu, the desired setting.

Resolution

With the Leica SL, you have a choice between a wide variety of resolution settings including two different 4K resolutions (4096 x 2160, often referred to as 'cinema 4K', and 3840 x 2160, the resolution used in UHD television sets). Except for 4096 x 2160, which is only available with a frame rate of 24fps, all other resolutions can be combined with different frame rates. This allows them to be matched e.g. to the prevailing mains frequencies, or to ensure especially smooth rendition of moving subjects with the higher frame rates. All frame rates are of the progressive type.

Setting the function

1. In the menu's **IMAGE** section, select **Video Resolution**, and
2. in the submenu, the desired setting.

ISO sensitivity

All the settings listed on p. 202 but with the restriction described on the next page in respect of the shutter speeds.

Note:

Vertical and horizontal lines may become visible in the image, especially when shooting dark subjects with high ISO values containing very bright, spot light sources.

Distance setting

All options described on pp. 208/209.

Exposure metering methods

All options described on p. 216.

Exposure modes

- Aperture priority
- Manual control with shutter speeds of $\frac{1}{30}$ - $\frac{1}{4000}$ s. Manually set slower shutter speeds are automatically reset to $\frac{1}{30}$ s.

Note:

To ensure a consistent exposure, you should use manual shutter speed settings, otherwise changes in the subject, e.g. movements, could cause a brightness fluctuations.

Color space

Video recordings are only possible with sRGB.

Contrast, saturation, sharpness

All options described on p. 196, but these are set separately for video recording.

Setting the function

1. In the menu's **IMAGE** section, select **Video Settings**,
2. in the submenu, the desired item, and
3. in the respective submenus the desired settings.

Stabilization

This function gives video recordings benefit from a considerably steadier picture composition. This function must be set for video recordings separately from the setting for photos.

Setting the function

1. In the menu's **IMAGE** section, select **Video Settings**,
2. in the submenu, **Video Stabil.**, and
3. switch the function **On** or **Off**.

Gamma L-Log

Video files recorded with this function initially have a 'flat' look with very unsaturated colors and a very small dynamic range. This is the preferred type of file for professional post-processing.

Setting the function

1. In the menu's **IMAGE** section, select **Video Settings**,
2. in the submenu, **Video Gamma L-Log**, and
3. switch the function **On** or **Off**.

Time code

The time code is a data set that is generated and recorded parallel to the image and audio data. It allows the correct time synchronization of picture and audio signals even after cutting, or after a later separate processing.

You can choose between a continuous 'running' time code – **Free Run** and one for the particular recording – **Rec Run**.

Setting the function

1. In the menu's **IMAGE** section, select **Video Settings**,
2. in the submenu, **Time Code**,
3. in that item's submenu **Mode**, and
4. in the final submenu the desired function.

You can choose if you want to define the start yourself, i.e. how large the time offset is to be between the start of recording and the start of time code signal generation – **Manual**, or use the time code signal generated by the camera – **Camera Time**. You can also reset your settings in **Manual** to **0**.

Setting the function

1. Perform steps 1. and 2. described above,
2. in the **Time Code** submenu, select **Start Time**, and
3. in that submenu the desired function.
 - If **Camera Time** or **Reset Timecode** are selected, the **Time Code** submenu reappears. If **Manual** is selected, another submenu appears containing numerical groups: **hr** [hours], **mn** [minutes], **ss** [seconds], and **Frame** [frame number within the respective second].

Setting a delay

4. To set a numerical group, turn the click wheel, or press the joystick up or down.
To switch between groups, press the click wheel, or the joystick inwards, to the left or to the right.

Video aspect ratio

If the intended review equipment has a different aspect ratio than that determined in **Video Resolution** (see p. 230), you can select appropriate frame lines to be displayed with this mode that help you to match your framing to the respective aspect ratio.

Setting the function

1. In the menu's **SETUP** section, select **Capture Assistants**,
2. in the submenu, **Video Aspect Ratio**, and
3. in the corresponding submenu, switch the respective frame line sets **On** or **Off**.
 - The format limits of a more rectangular aspect ratio (than that of the recorded video) are indicated by horizontal green lines, those of a more square one by vertical red lines.

Note:

You can activate any number of frame lines for simultaneous display.

Video safety area

During review with different equipment, a slight amount of the frame edges may be trimmed. To make sure this does not cut off decisive parts of the subject, you can facilitate appropriate framing with the help of four different 'safety margins'.

Setting the function

1. In the menu's **SETUP** section, select **Capture Assistants**,
2. in the submenu, **Video Safety Area**, and
3. in the corresponding submenu, **80%**, **90%**, **92.5%**, or **95%**.
 - The resulting safety area is indicated by a respective frame.

Note:

The frames are based on the actually recorded video format. They are not on any aspect ratios that may have been selected in **Video Aspect Ratio** (see previous section).

Auto ISO Video

All options described on p. 202, but these are set separately for video recording.

Setting the function

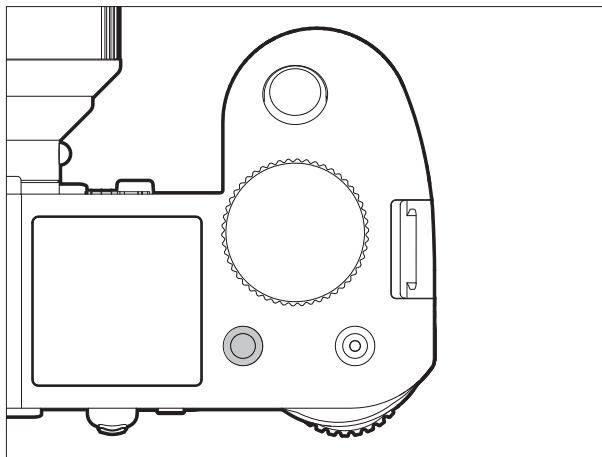
1. In the menu's **SETUP** section, select **Auto ISO Settings**,
2. in the submenu, **Auto ISO Video**, and
3. in the next submenu **Maximum ISO**, **Maximum Exposure Time** or **Floating ISO**, and
4. select the desired settings in the respective submenus, or switch the **Floating ISO** function **On** or **Off**.

Video preview mode

This mode allows checking the effects of the previously described settings, as well as setting the sound recording level (see below) before actually starting a video recording.

Switching between photo and video preview modes

Press the **LV** button briefly.



Sound recording

Video recordings are normally recorded with sound. This can be done using the built-in microphones or with external microphones connected via the camera's respective socket (see p. 161). The built-in microphones record in stereo. Although the recording level is controlled automatically.

In order to achieve the desired volume or to improve audibility, you can adjust the sensitivity of the microphone to fit the recording situation.

Note:

The level is not controlled separately for each channel.

Setting the function

1. In the menu's **IMAGE** section, select **Video Settings**,
2. in the submenu, **Microphone Gain**, and
3. in the corresponding submenu, the desired level.

To reduce any noise caused by wind, a damping function is available.

Setting the function

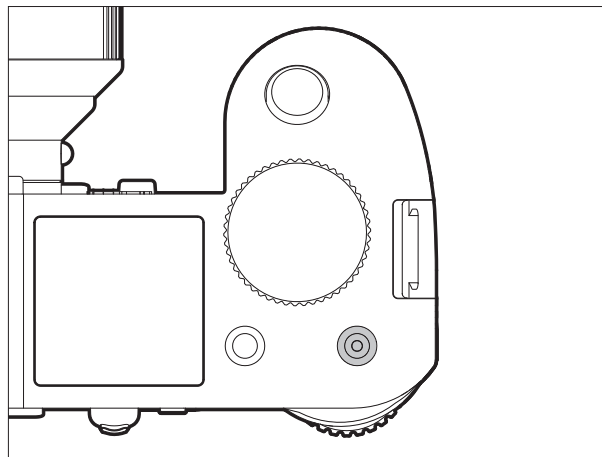
1. In the menu's **IMAGE** section, select **Video Settings**,
2. in the submenu, **Wind Elimination**, and
3. in the respective submenus the desired settings.

Notes:

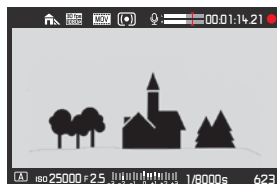
- Both the focusing and auto focus operations cause noises which are also recorded. In order to prevent this, you should refrain from using these functions during an ongoing recording.
- Both menu item can be assigned to the **FAVORITES** menu.

Starting / ending the recording

A recording starts when you press the video shutter release and ends when you press it again.



- A video recording in progress is indicated in the monitor/viewfinder by a flashing red dot and the elapsed recording time. As video recordings on this camera can be made with different aspect ratios (depending on the resolution set), black strips will appear in the monitor/viewfinder either above and below, or to the left and right of the image.



— Total pictures remaining

Video mode	Memory card(s) inserted	HDMI connection	Video saved on		Bit depth
			Inserted memory card(s)	external recording device	
Preview	regardless				
Recording	yes	regardless	yes	no	8 bits
	no	yes	-	yes	10bits

Recording on an external device

The recorded video is normally saved to the inserted memory card(s). Using the HDMI connection, it can also be recorded to an external device. This is not only possible with the video recording mode, but also during video preview mode. Whereas the bit depth¹ used when saving to cards is 8bits, the HDMI connection delivers 10bits. The table below illustrates the available modes.

Note:

- Before recording video to inserted memory card(s), make sure they have sufficient capacity).
- Only use the HDMI cable model specified by Leica for this camera (see p. 272).

¹ The higher the bit depth value, the more different color hues can be registered and reproduced, i.e. the finer the transitions between the colors will be.

Mode Lock

With this function, you can disable the video button, i.e. when set to **On**, pressing the button doesn't start video recording. For further details, see 'Locking the shutter release and video recording buttons' on p. 205.

Setting the function

1. In the menu's **SETUP** section, select **Customize Control**,
2. in the submenu, **Mode Lock**, and
3. switch the function **On** or **Off**.

Taking pictures while recording video

With the Leica SL you can briefly interrupt ongoing video recording in order to take one or more photos. Photographs are taken using the settings in the corresponding menu items and exactly as described in the corresponding sections.

Taking a picture

1. Press the shutter release button to the 1st pressure point while recording video.
 - The number of recordable pictures is displayed in the screen footer when the shutter release button is pressed halfway.
2. Push the shutter release button all the way down to take the photo.

Recording video starts again when taking the photo completed.

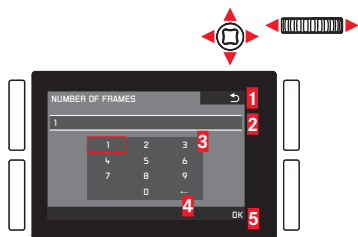
ADDITIONAL RECORDING FUNCTIONS

INTERVAL PICTURE SERIES

The Leica SL 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 start time of the series, the intervals between pictures, and the number of pictures.

Setting the function

1. In the menu's **CAMERA** section, select **Drive Mode**, and
2. in the submenu, **Interval**.
3. Back in the **CAMERA** section, select **Interval** this time,
4. in the submenu **Number of Frames**, and
5. in the corresponding keypad-submenu the number of shots the intended interval series is supposed to consist of.



- 1 Back "button" (for returning to the previous menu level without confirming any settings)
- 2 Edit line
- 3 Numeric pad
- 4 Delete "button" (for deletion of the respective last value)
- 5 Confirmation "button" (for both individual values as well as the finished settings)

Operating the keypad can be done differently.

Using menu control

- To move left or right, turn the click wheel or press the joystick in the desired direction.
- To move up or down, press the joystick in the desired direction.
- To confirm a value or setting, press the click wheel or the joystick inwards.

Using gesture control

- Tap the desired value and the respective setting 'buttons'.
- To set the time between the shots and the time until the series is supposed to start:
 1. In step 3. above mentioned **Interval** submenu, select **Interval** and **Countdown**, respectively, and
 2. in the corresponding submenus, the respective times.
 - To set the values, turn the click wheel, or press the joystick up or down.
 - To switch between hours, minutes and seconds, press the joystick inwards or in the desired direction. Pressing the click wheel is also available.
 - To confirm settings, press the **BR** button.

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/viewfinder image.

Press the shutter release button to start the series.

- 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:

- The pictures in a series are saved as a group.
- 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.
- If the camera will be left unattended while taking an interval picture series, take precautions to ensure that it won't get stolen.
- An interval picture series 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.
- Under certain conditions, it may not be possible to an interval picture series, depending on the picture interval or number that has been set.

- Use a sufficiently charged battery.
- An interval picture series will be interrupted or stopped in the following situations:
 - If the battery loses its charge
 - If the camera is turned offIf this happens while you are photographing an interval picture series, you may proceed by turning off the camera, changing the battery or memory card(s), and then turning the camera back on. The pictures that are taken after this will be saved in their own group.
- While an interval picture series is being taken, neither a USB nor an HDMI micro cable can be connected to the camera.
- The function will remain active, even after a completed series or after the camera has been turned on and off. If you want to take normal pictures again, select the desired function in the **Drive Mode** submenu.
- In review mode, pictures from an interval series are identified with .
- This does not make the camera suitable for use as a surveillance device.
- This function can be assigned to one of the soft keys for direct access, and also to the **FAVORITES** menu.

TAKING PHOTOGRAPHS WITH THE SELF-TIMER

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

Setting / using the function

1. In the menu's **CAMERA** section, select **Drive Mode**, and
2. in the submenu, the desired delay time.
3. To start the process, press the shutter release button all the way down (see also "Shutter release button", p. 204).

Note:

During the countdown, you can restart the delay time, i.e. extend it, by pressing the shutter release button again.

Process

With 2s delay time:

Exposure metering is carried out first, in autofocus mode the focus is set. The delay time then begins.

With 12s delay time:

The delay time begins immediately after the shutter release button is pressed.

Exposure metering and autofocus operation - if set - takes place 2s before the picture is taken.

Displays/Indications

The elapsed delay time is indicated:

- on the monitor/in the viewfinder by the display **Releasing in XXs** and a countdown of the remaining time until the picture is taken.
- By the LED on the front of the camera. It flashes quickly during a 2s delay. During a 12s delay, it flashes slowly for the first 10s, and then quickly for the last 2s.
- If acoustic signals are turned on (see p. 189), beeps sound in the same rhythm.

Canceling the function

A self-timer delay time in progress can be canceled

- by turning off the camera,
- during the first 10s of a 12s self-timer delay time by pressing any one of the **TL/TR/BR/BL** buttons.

If you no longer want to use the self-timer, select a different item in the **Drive Mode** submenu. The function is also deactivated by turning off the camera.

Note:

This menu item can be assigned to one of the soft keys for direct access, and also to the **FAVORITES** menu.

LENS PROFILES

When Leica SL lenses are attached to the Leica SL, lens-related data is automatically read by the camera. If other lens types such as certain Leica M lenses are used with the help of an adapter (see 'Accessories', p, 272), the respective lens data must be entered manually. This is done by selecting the lens from a list.

Setting the function

1. In the menu's **SETUP** section, select **Lens Profiles**,
2. in the submenu, **M-Lenses**, and
3. in the corresponding submenu, the desired lens.

Note:

There are a few functional restrictions when using Leica M and R lenses with the respective adapters,:

- Only the exposure control modes **A** and **M** are available.
- Only manual focusing is available, i.e. no autofocus-related functions.
- The set aperture cannot be displayed, instead, **F-** is shown.

REVIEW MODE

Note:

Two functions are available for the review of your recordings:

- Automatic review after each recording
- Review for unlimited time

AUTOMATIC REVIEW OF THE LAST RECORDING

In this mode, each recording is displayed immediately after it is taken. You can set the time for which it is to be displayed.

Setting the function

1. In the menu's **SETUP** section, select **Auto Review**, and
2. in the submenu, the desired duration or **Off**.

REVIEW FOR UNLIMITED TIME –

Press the **TR** button briefly.

- The last picture taken appears along with the corresponding displays. However, if the memory card(s) does/do not contain any image files, the following message appears:

No valid picture to play.

To switch back to photo recording mode:

Press the shutter release button.

To switch back to photo recording or video preview modes



(whichever was activated before switching to review mode) :

Press the **LV** button.

Most settings in review modes can be done either with gesture or button control. A list of the gestures that can be used, including descriptions, can be found on p. 291.

Displays

For undisturbed viewing of the recordings, only the following are displayed during review for unlimited time:

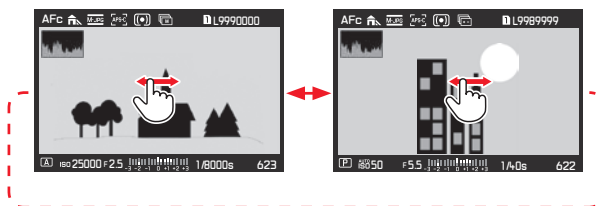
- In the header some fundamental information
- The functions of the adjacent buttons for 3 seconds in the four corners of the monitor picture when switched on: = ☆ Rating function, = **i** Change of display, =  Delete function and =  Menu
- **BR** button for button lock (if activated)
- If the memory card or the selected file cannot be read, a corresponding symbol appears in the right-hand margin of the black picture.
- If the histogram function is on, the diagram will also appear. If the clipping /zebra displays are set, excessively bright areas in the image without any detail will be marked.

Notes:

- If you have taken pictures using the continuous series, the automatic bracketing function, or the interval picture series function, the last picture in the series is shown first, or the last picture saved if all pictures in the series have not yet been transferred from the camera's internal buffer memory.
- It may not be possible to view files created on another device on this camera.
- In some cases, the image may not have the usual quality or the screen will remain blank and only display the file name.

SELECTING/SCROLLING THROUGH RECORDINGS

Using gesture control



Using physical controls

Turn the click wheel, or press the joystick to the right or left.

Swiping/turning/pressing to the right will take you to newer recordings (with higher numbers), to the left to previous ones (with smaller numbers).

The recordings are shown in an endless loop. If two memory cards containing different image data are inserted, the recordings on the card in slot 1 will be shown first, then those on the card in slot 2, a.s.o.

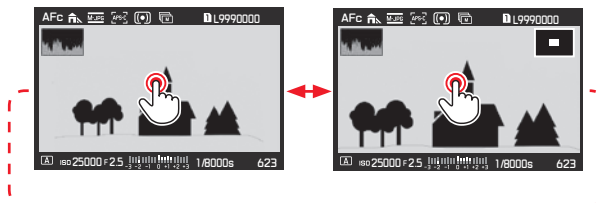
ENLARGING PHOTOS

You can enlarge a section of a photo, e.g. to study it more closely. Enlargement is possible in 4 steps until 1 pixel of the monitor displays 1 pixel of the picture.

- The rectangle inside the frame shows the approximate size of the section.

To call up the highest possible enlargement in one step:

Using gesture control



Using physical controls

Press the click wheel or the joystick inwards. To return to normal size in one step, press again.

To enlarge as desired:

Using gesture control



Using physical controls

Turn the top dial or press the joystick to the right. To reduce, turn/press to the left.

Notes:

- Enlarging cannot be performed on videos.
- The more the picture is enlarged, the more the reproduction quality deteriorates – due to the proportionately lower resolution.
- It may not be possible to enlarge pictures taken with other cameras.

MOVING AN ENLARGED SECTION

- The rectangle inside the frame moves to the position of the shifted section.

Using gesture control



Using physical controls

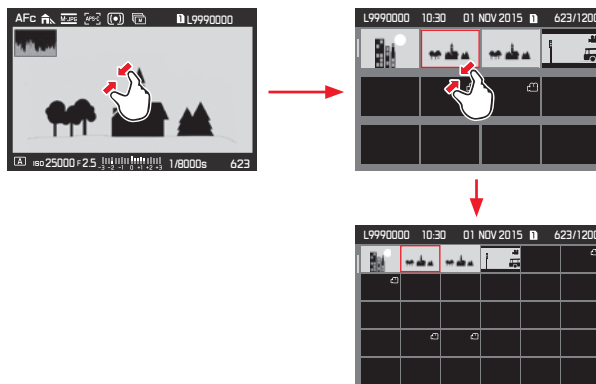
Press the joystick in the desired direction.

SIMULTANEOUS DISPLAY OF 12/30 RECORDINGS

The recordings can be reduced so that 12 or 30 are shown on the screen. This makes it easier to get an overview and to find a certain recording.

The procedure is basically the same - in reverse - as when enlarging.

Using gesture control



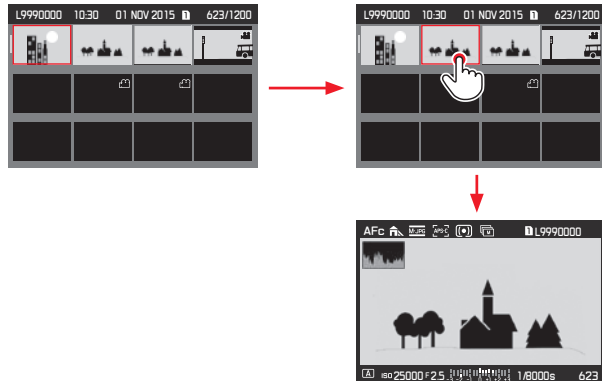
Using physical controls

Turn the top dial to the left. One click past normal view = 12-picture view, two = 30-picture view.


- 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 view or 12/30 display, the display with additional information cannot be opened.

Selecting a recording in the 12/30 view**Using gesture control****Using physical controls**

1. Turn the click wheel - it moves line by line - or press the joystick in the desired direction.
 - The red frame moves accordingly.
2. Press the click wheel or the joystick inwards.
 - The selected recording will be shown at its normal size.

If two memory cards are inserted containing different image data, you can immediately switch the card sourced for the 12/30 view: Press the **BR** button (marked .

MARKING RECORDINGS

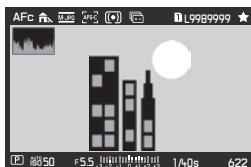
You can mark recordings on the memory card(s) as favorites - as desired individually or several at a time.

This makes it easy to delete the unmarked 'non-favorites' all at once (see "Deleting unrated recordings", p. 250).

Marking single recordings

Procedure

1. Select the desired recording by turning the click wheel or pressing the joystick in the desired direction, and
2. press the **TR** button (twice, if the button function icons are not displayed initially).
 - ★ appears in the right corner of the header.



Marking multiple recordings

Procedure

1. Set the simultaneous display of 12 or 30 recordings by turning the top dial counterclockwise.
2. Select the desired recordings by turning the click wheel - it moves line by line, or pressing the joystick in the desired direction.
 - The red frame moves accordingly.
3. Mark the framed recordings by pressing the **TR** button (twice, if the button function icons are not displayed initially).
 - ★ appears in the top right corner of the recordings.

In both cases, unmarking is done the same way.

DELETING RECORDINGS

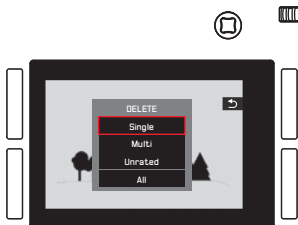
Recordings on the memory card(s) can be deleted at any time - as desired individually, several at a time, or all at the same time. This can be useful, e.g. if they have already been saved to other media, if you no longer require them or if you need to free up more space on the memory card(s).

Note:

Deleting is possible regardless of whether a recording is being displayed at normal size or several reduced pictures are displayed (but not if the 30 recording review is activated with a red frame around the entire block).

Procedure

1. Press the **BL** button.
 - The corresponding submenu appears in the monitor.



Note:

You can leave the **DELETE** menu again without deleting anything: Press the **TR** button.

Deleting only unmarked recordings

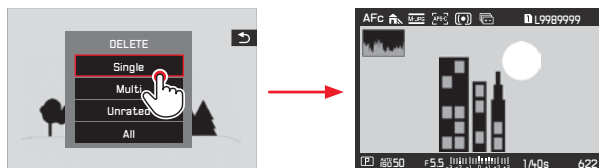
Procedure

Tap on **Single**, or press the click wheel or the joystick inwards.

If one of the other options is marked by the red frame, and you want to use physical controls:

Turn the click wheel or press the joystick up or down.

- After deleting, the next recording appears.



Important:

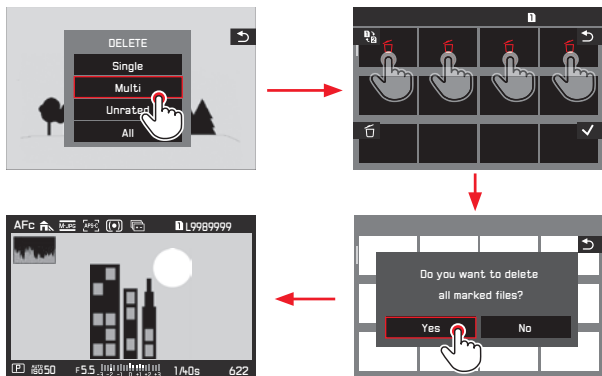
After the steps described above are carried out, the recordings will be immediately deleted without any additional confirmation queries.

Note:

Even while the **DELETE** menu is visible, you can scroll through the other recordings.

Deleting multiple recordings


Using gesture control





Using physical controls

1. Select **Multi** by turning the click wheel or pressing the joystick up or down, and
2. confirm the setting by pressing click wheel or the joystick inwards to mark the desired recordings
 - The 12-recording view is displayed.
3. Select the desired recordings by turning the click wheel - it moves line by line, or pressing the joystick in the desired direction.
 - The red frame moves accordingly.
4. Mark the recordings selected for deletion by pressing the click wheel or the **BR** button, or the joystick inwards. Select and mark the other recordings intended for deletion in the same way.

Unmarking is also done the same way.

 - The framed picture is marked with .
5. Save your settings by pressing the **BL** button.
 - A query screen appears.
6. Confirm or reject the process by first turning the click wheel, or pressing the joystick to the left or right, and the pressing one of them.
 - Deletion may take a few moments, depending on the amount of data. An intermediate screen appears during this time. After the process is completed, the normal size review screen returns.

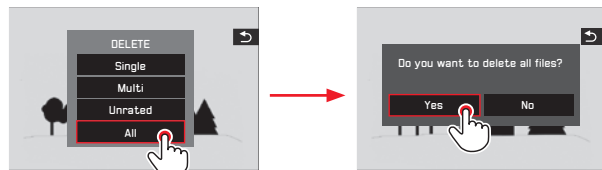
Notes:

- It is possible to leave the **Multi** submenu at any time without accepting the markings by pressing the **TR** button (marked .
- The camera can be switched to the other memory card by pressing the **TL** button (marked .

Deleting all recordings

Procedure

1. Tap on **All**, or press the click wheel or the joystick inwards.
If one of the other options is marked by the red frame, and you want to use physical controls:
Turn the click wheel or press the joystick up or down.
 - A query screen appears.
2. Confirm or reject the process by first turning the click wheel, or pressing the to the joystick left or right, and then pressing one of them.
 - Deletion may take a few moments, depending on the amount of data. An intermediate screen appears during this time. After the process is completed, a blank screen with the message **No valid picture to play** appears.



Deleting unrated recordings

Procedure

This is done exactly as explained on the left, except for selecting **Unrated** instead of **All**.

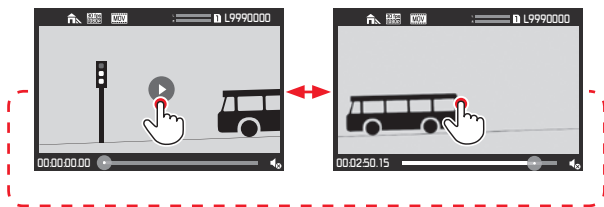
- Deletion may take a few moments, depending on the amount of data. An intermediate screen appears during this time. After the process is completed, the normal size review screen returns.

VIDEO REVIEW

If a video recording is selected,  appears in the screen center.

Starting and stopping playback

Using gesture control



Using physical controls

Press the click wheel or the joystick inwards.

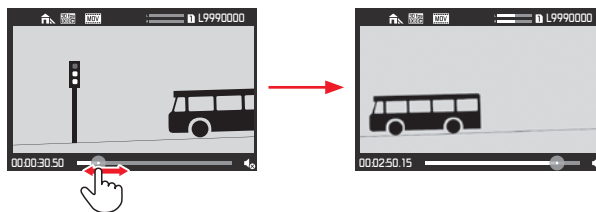
- The time display and the mark on the progress bar indicate playback progress.

To pause or stop playback, repeat the operations described above.

- The time display and the mark on the progress bar indicate the stopping point.

Continuing playback at any given point

Using gesture control



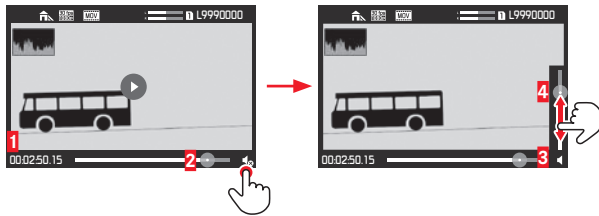
Using physical controls

Turn the click wheel or press the joystick in the desired direction.

Opening the video and audio control symbols

(only during playback)

Touch control



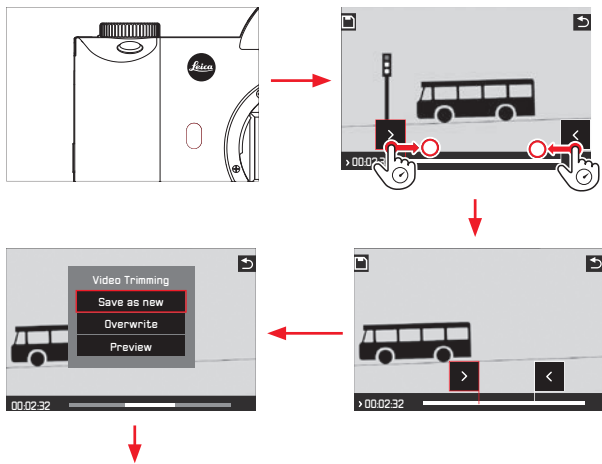
- 1 Elapsed time
- 2 Slide bar with touch space
- 3 Volume
- 4 Volume slide bar with touch space

Using physical controls

1. Press the joystick up or down.
 - The volume setting bar appears.
2. Set the desired volume by pressing the joystick in the desired direction (up = louder, down = quieter, all the way down = audio off, ◀ switches to 🔊).


Cutting off start and/or end sections

Using gesture control



For further operation, see the respective section on the next page.

Using button control

1. Press the **FN** button. This is possible both while the video is stopped or being played back.
2. Determine the cutoff points. To move them, turn the click wheel in the respective direction. To switch between start and end points, press the click wheel.
 - The selected cutoff point will be shown in red. During the process, the respective time is displayed as well as the freeze frames for the selected start and end points.
3. Press the **TL** button () to save your settings.
 - The **Video Trimming** submenu appears.
4. For further operation, see the respective section on the next page.

Further operation

Select one of three options, either through gesture control or with the joystick/click wheel for selection and the setting for confirmation.

- **Save as new**

The new video is saved and the original one is also retained.

- **Overwrite**

The new video is saved and the original one deleted.

- **Preview**

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

- A corresponding notification screen may appear temporarily at first due to the time required for the data to be processed. After completion, the first scene of the new video appears.

REVIEW WITH HDMI DEVICES

The Leica SL enables you to view your pictures on a TV, projector or monitor with HDMI input and thus in an optimum picture quality.

Connecting / viewing the pictures:

1. Insert the plugs on the HDMI cable into the HDMI sockets on the camera and the TV, monitor or projector.
2. Turn on the TV, projector or monitor. Once connected, the camera automatically selects the appropriate resolution for the connected HDMI device.
3. Turn on the camera.
4. Activate review mode by pressing the **TR** button.

Notes:

- Only use the HDMI cable specified by Leica for this camera (see p. 124).
- If the connected TV, monitor or projector has a lower maximum resolution than that set on the camera, it automatically switches to the maximum resolution of the connected device. For example, if you have set 1080i on the camera but the connected device only has a maximum resolution of 480p, the camera changes the setting automatically.
- For details of the required settings, refer to the instructions for the respective TV, projector or monitor.
- The image reproduced on an external display does not contain any of the information shown in the camera monitor / viewfinder.
- The HDMI connection can also be used to record the video to an external device. (see p. 236).

ADDITIONAL FUNCTIONS

USER PROFILES

With the Leica SL, any combination of menu settings can be permanently saved, e.g. so that they can be retrieved quickly and easily at any time for recurring situations/subjects. A total of four memory slots are available for these combinations, as well as a factory default setting that can be retrieved at any time and cannot be changed. You can change the names of the saved profiles. Profiles set on the camera can be transferred onto one of the memory cards, for example for use in other camera units, while profiles stored on a card can be transferred onto the camera.

Saving settings / Creating a profile

1. Set the desired functions in the menu.
2. In the menu's **SETUP** section, select **User Profile**,
3. in the submenu **Load Profile**, and
4. in the corresponding submenu, the desired memory slot.

Note:

This menu item can be assigned to the **FAVORITES** menu.

Selecting a profile

This works almost the same way as when saving settings, except that step 1. is skipped.

- After performing steps 2. and 3., if any user profiles are saved, the profile names appear in gray, with unused memory slots in green.

Then select the desired profile in the **Load Profile** submenu, i.e. either one of the saved profiles or **Default Profile**.

Note:

If you change one of the settings for the profile currently in use, **--** appears instead of the name of the profile you were previously using in the initial menu list.

Renaming profiles

1. In the menu's **SETUP** section, select **User Profile**, and
2. in the submenu **Rename Profiles**,
3. in the corresponding submenu, the desired profile slot, and
4. in the corresponding keypad-submenu, the desired characters for the new name.



- 1 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)
- 5 Confirmation "button" (for both individual characters as well as the finished settings)
- 6 Change the character type
- 7 Shift key

Operating the keypad can be done differently.

Using menu control

To move left or right, turn the click wheel or press the joystick in the desired direction.

To move up or down, press the joystick in the desired direction.

To confirm a value or setting, the respective setting 'buttons'.

Using gesture control

Tap the desired value and the respective setting 'buttons'.

Transferring profiles from / to a card

You can copy either selected profile slots, or all at once to the memory card(s), whereas copying from the memory card(s) to the camera always includes all slots previously saved to the card(s).

Exporting

1. In the menu's **SETUP** section, select **User Profile**, and
2. in the submenu, **Export Profiles to Card?** for individual slots, or **EXPORT PROFILES** for all at once.
3. In the following confirmation submenu, confirm or reject the process. If **EXPORT PROFILES** is set in step 2., this submenu follows immediately.

Importing

1. In the menu's **SETUP** section, select **User Profile**, and
2. in the submenu **IMPORT PROFILES FROM CARD**, and
3. in the following confirmation submenu, confirm or reject the process.

Note:

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

RESETTING ALL MENU SETTINGS

This function allows you to delete all previous custom settings in the menu at once, and to reset them to the factory default settings.

1. In the menu's **SETUP** section, select **Reset Camera**, and
2. in the following confirmation submenu, confirm or reject the process.

Notes:

- When resetting to the factory default settings, your settings for the date, time and language are not reset.
- This reset also applies to the profiles that may have been created and saved with **Load Profile** (see p. 256).

COPYRIGHT PROTECTION

This camera enables you to mark your picture files by entering text or other characters.

Setting the function

1. In the menu's **SETUP** section, select **Copyright Information**, and
2. in the submenu, switch the function **On** or **Off**.
 - When switched **On**, the two other submenu items become accessible.
When **Information** or **Name** are set in the submenu, the same keypad submenu described previously for **Benutzerprofile umbenennen** appears.
3. Selecting the desired characters is done exactly as described there.

Notes:


- Only alphabetical characters and symbols can be entered.
- A maximum of 20 characters can be entered.
- This function is only available for picture recording mode.




GPS AND GEOTAGGING (Adding location information to pictures)

The Global Position System enables the current position of the receiver to be determined worldwide. When this function is activated, the Leica SL continuously receives the corresponding signals and updates the position data. The camera writes this information - latitude and longitude, height above sea level - to the "EXIF" data.

Setting the function

1. In the menu's **SETUP** section, select **GPS**, and
2. switch the function **On** or **Off**.

The "satellite" symbol () , only visible in the picture data display symbol in the monitor indicates the current status:

-  Position last determined a maximum of 6 min ago
-  Position last determined a maximum of 24hrs ago
-  Position last determined at least 24hrs ago, or no position data available

Notes:

- The prerequisite for GPS positioning is to have as clear a view as possible of at least three GPS satellites (out of the total of 24, up to 9 are available from every location on earth). We therefore recommend holding the camera with the GPS antenna pointing vertically upwards.
- Make sure that the GPS antenna is not covered with your hand or any other item, particularly metal objects.
- It may not be possible to receive good signals from GPS satellites at the following locations or in the following situations.

In such cases, either no positioning at all or only inaccurate positioning is possible.

- Closed rooms
- Underground
- Under trees
- In a moving vehicle
- Close to tall buildings or in steep valleys
- Close to high voltage cables
- In tunnels
- Close to mobile telephones
- With accessories attached in the flash shoe, e.g. a flash unit
- This menu item can be assigned to the **FAVORITES** menu.

Information for safe use

The electromagnetic field generated by the GPS system can influence instruments and measuring equipment. Therefore, make sure the GPS function is deactivated on board an aircraft before takeoff or landing, in hospitals or in other locations where there are restrictions on wireless transmissions.

Important (legal restrictions on use):

- In certain countries or regions, the use of GPS and associated technologies may be restricted. Therefore, before traveling in other countries you should consult the relevant country's embassy or your travel agent.
- The use of GPS inside Cuba and close to their borders is prohibited by the country's laws. Contravention will lead to prosecution by the national authorities.

FORMATTING MEMORY CARDS

It is not normally necessary to format memory cards that have already been used. Nevertheless, it is recommended that the memory card be reformatted occasionally, as a certain amount of residual data (information accompanying pictures) can take up memory capacity.

Setting the function

1. In the menu's **SETUP** section, select **Format**,
2. in the submenu which of the two cards you want to format, and
3. in the following confirmation submenu, confirm or reject the process.

Notes:

- Formatting does not cause the data on a card to be irretrievably lost. Only the directory is deleted, which means that the existing files are no longer directly accessible. The data can be accessed again under certain circumstances using appropriate software. Only the data that is subsequently overwritten by saving new data is actually permanently deleted. 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 the camera off while a memory card is being formatted.
- If a memory card has been formatted in another device, such as a computer, you should reformat it in the camera.
- If a memory card cannot be formatted, you should ask your dealer or the Leica Product Support department (for address, see p. 296) for advice.
- When formatting a memory card, even protected pictures are deleted (see p. 248).
- This menu item can be assigned to one of the soft keys for direct access, and also to the **FAVORITES** menu.

RESETTING RECORDING NUMBERS

The Leica SL saves the recording numbers in ascending order. Initially, the corresponding files are all saved in one folder. To structure the storage of recordings more clearly, you can create a new folder at any time so that subsequent recordings can be grouped together there.

Setting the function

1. In the menu's **SETUP** section, select **Reset image numbering**, and
2. in the following confirmation submenu, confirm or reject the process.

Notes:

- The file names (e.g. L1002345.jpg) are made up of two groups of numbers, 100 and 2345. The first three figures are the number of the relevant folder, the 4th to 7th figures are the consecutive picture number within that folder. This ensures that there are no duplicate file names after using the function and transferring the data to a computer.
- To reset the folder number to 100, format the memory card and reset the picture number immediately afterwards. This also resets the picture number (to 0001).

MISCELLANEOUS

TRANSFERRING DATA TO A COMPUTER

The camera is equipped with a USB 3.0 high-speed interface for transferring data.

Via the USB cable connection and using the camera as an external drive

With Windows operating systems:

The operating system detects the camera as an external drive and assigns it a drive letter. Transfer the picture data to your computer using Windows Explorer and save it.

With Mac operating systems:

The memory card appears as a storage medium on the desktop. Transfer the picture data to your computer using the Finder and save it.

IMPORTANT:

- Only use the USB cable supplied.
- While data is being transferred, the USB connection must not be interrupted as this can cause the computer and/or the camera to crash and may even cause irreparable damage to the memory card.
- While data is being transferred, the camera must not be turned off or should not shut down due to a lack of battery capacity, as this can cause the computer to crash.
- For the same reason the battery must never be removed from the camera while the connection is active. If the capacity of the battery runs low during data transfer, the **INFO** screen appears, with the battery capacity flashing. In this case, cancel the data transfer, turn off the camera and charge the battery.

Using card readers

Picture data can also be transferred using card readers for SD/SDHC/SDXC memory cards (including UHS I types) on the computer itself. External card readers are also available that connect to the computer using a USB interface.

Note:

The Leica SL is equipped with an integral sensor, which detects the orientation of the camera – horizontal or vertical (both directions) – for each picture. This information allows the pictures to be presented upright automatically when subsequently displayed on a computer running the appropriate programs.

WIRELESS DATA TRANSMISSION AND REMOTE CONTROL OF THE CAMERA

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

Note:

In this section, the terms "smartphone" and "iPhone" refer 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 - **Remote Control by App**, or through a browser - **Web Server**, or if you want to switch of any WLAN connection altogether - **Off**. 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.

Setting the function

1. In the menu's **SETUP** section, select **WLAN**,
2. in the submenu, **Function**, and
3. in the respective submenu the desired function.

Note:

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

Further operation with Remote Control by App:

4. Establish a connection with a smartphone.
5. Select **Camera Control** in the 📷 Leica SL app.
6. Take your pictures.

The pictures taken are saved in the camera.

The most important settings are available in the 📷 Leica SL app.

Further operation with Web Server:

- When **Web Server** is selected in step 3, 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 (network address, starting with 192.168) 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 an available WLAN network, e.g. via a router, the **Client** method may work best. When using this method, both the camera and smartphone are in the same WLAN network. If no WLAN is available, establishing a direct connection (**Host**) may be most practical. When using this method, the camera generates an access point which your smartphone can connect to.

Setting the function

1. In the menu's **SETUP** section, select **WLAN**.
2. in the submenu, **WLAN Mode**, and
3. in the respective submenu **Host** or **Client**.

Wlan client setup

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

Setting the function

1. In the menu's **SETUP** section, select **WLAN**.
 2. in the submenu, **WLAN Mode**, and
 3. in the respective submenu **Client**.
 4. Return to the **WLAN** submenu, and
 5. select **Setup**.
- An intermediate screen appears briefly while searching for the available networks. Then, the respective submenu is shown. It contains the items **Scan** and **Add Network**, and lists the networks the camera has found.

Establishing a connection with a Smartphone in **Client** mode

6. 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**.
To establish a connection with a possibly hidden network, select **Add network**, and in the respective submenu, enter the **SSID** and the encryption and connection methods.

WLAN host setup

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

Setting the function

1. In the menu's **SETUP** section, select **WLAN**,
2. in the submenu, **SETUP**, and
3. in the respective submenu **SSID/network name**, or **Security**, or **Password**.

In the **SSID/network name** keypad submenu, you can change the camera name in the network. This is done exactly as described in the section 'Renaming profiles' on p. 254.




It is recommended that you retain the preset encryption method **WPA2** in the **Security** submenu. Only use **Open** if you are sure there cannot be any unauthorized access.

In the **Password** keypad submenu, you can enter the desired characters exactly as described in the section 'Renaming profiles' on p. 254.

Establishing a connection with a smartphone in **Host** mode

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

Establishing a connection with QR code:



1. Launch the  Leica SL app on your iPhone and
2. select **Connect by QR Code**
3. Import the QR code shown on the camera using the  Leica SL app.
4. Install the "**Leica SL-**" profile on your iPhone.
5. First select **Install**, then **Install**, and then **Done**.
 - A message will appear in the web browser on the iPad or iPhone.
6. If a password is needed to unlock the iPhone, then this must be entered.
7. Click the home button to close the web browser.
8. Select and activate **Wi-Fi** under **Settings** on the iPhone. Then select the SSID displayed on the camera (from the factory: Leica SL-).
9. Return to the home screen and then launch the  Leica SL app.

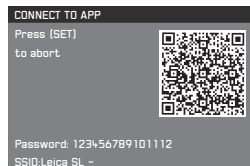
Note:

This description applies to operating systems up to 8.3, i.e. it is subject to changes in future OS versions.

Using an Android device


Establishing a connection with QR code:

1. Launch the  Leica SL app on your Android device
2. select **Connect by QR Code**.
3. Read the QR code shown on this device using the  Leica SL app.



The following steps are the same with both types of devices.

Establishing a connection with SSID and password:

1. Launch the  Leica SL app on your device.
2. Select **WLAN**.
3. Select the SSID displayed on this device.
4. 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 protect against disruptions to the systems used.
 - Leica Camera AG does not accept any liability for damages arising from the use of the camera for purposes other than as a WLAN device.
 - It is assumed that the WLAN 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 does not assume any 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 subject to magnetic fields, static electricity, or disturbances, such as near microwaves. 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.
 - When the WLAN function is activated, the camera will automatically search for wireless networks. When this happens, networks that you are not authorized to use (SSID: indicates the name used to identify a network over a WLAN connection) may be displayed. Do not attempt to connect to such a network, since this would be seen as unauthorized access.

USING RAW DATA (DNG)

If you wish to use the standardized and future-proof DNG (Digital Negative) format, you will need specialized software to convert the saved raw data into optimum quality, e.g. a professional raw data converter. Such software provides quality-optimized algorithms for digital color processing, delivering exceptionally low-noise photographs with incredible resolution.

During editing, you have the option of adjusting parameters such as noise reduction, gradation, sharpness etc. to achieve an optimum image quality.

An image processing software suite is available as a free download when you register your camera on the Leica Camera AG home page. Further details can be found on the registration form supplied in the camera packaging.

INSTALLING THE IMAGE PROCESSING SOFTWARE

To start the installation, your computer must have an active internet connection. You also need a valid e-mail address. Have the required software license code ready. You will receive this in the reply mail from Leica once you have chosen to download the software.

If you require support for the software: You will find a support form in the customer area on the Leica Camera AG home page, where you registered your camera and downloaded it.

System requirements

Software always has certain requirements depending on the operating system you are using (Windows/ Mac), and also which version.

Therefore, you should check the compatibility of your operating system before you launch the software.

In some Windows versions, it is possible that the operating system will issue a warning about a missing Windows signature. Ignore this message and continue with the installation.

INSTALLING FIRMWARE UPDATES

Leica is constantly working on developing and optimizing its products. As digital cameras have many functions that are controlled electronically, improvements and enhancements to the functions can be installed on the camera at a later date.

To do this, Leica releases what are known as firmware updates at irregular intervals which can be downloaded from our homepage. Once you have registered your camera on the Leica Camera homepage, you will receive a newsletter informing you when a new firmware update is available. Leica Camera AG will notify you of all new updates.

To identify which firmware version is installed:

1. In the menu's **SETUP** section, select **Camera Information**, and
2. in the submenu, **Firmware Version**.

In the same submenu you can also call up other devices or country-specific registration marks or numbers.

Further information on registration and firmware updates for your camera, as well as any amendments and additions to the details provided in these instructions, can be found in the "Owners' Login" area at: <https://owners.leica-camera.com>

To download new firmware:

ACCESSORIES

INTERCHANGEABLE LENSES

The Leica SL's L bayonet is a versatile interface allowing not only the use of the dedicated Leica SL lenses, but also other lens types with the help of the adapters listed below.

LENS ADAPTERS

LEICA T ADAPTER M

This adapter allows Leica M lenses to be used on the Leica SL. The adapter is equipped with the electronics necessary to transmit the lens data provided by the lenses' 6-bit coding to the camera, thus enabling the same functions and displays as when using them on Leica M bodies. Uncoded M lenses can also be used. (Order no. 18 771)

LEICA R ADAPTER M

Together with the above mentioned L Adapter M, the Leica R adapter M allows almost all Leica R lenses to be used on the Leica SL, regardless of which actuating cam they are equipped with (SL "ramps" / R "steps") and whether or not they have a ROM contact strip. It is also possible to use these lenses in conjunction with Leica Extender R models, and with close-up accessories such as the Leica Macro Adapter R, Leica R intermediate rings and the R BR2 automatic bellows. (Order no. 14 642)

FILTERS

Several different types of filters are available for the Leica SL lenses.

FLASH UNITS

The Leica SL can be used with different types of flash units. Only system-compatible units with the proprietary Leica interface allow camera-based, fully automatic flash exposure control. Leica SF 26 (Order no. 14 622)

LEICA MULTIFUNCTION HAND GRIP SL

The multifunction grip simplifies handling for portrait format pictures thanks to its form and appropriately positioned operating elements. It also allows the use of an additional battery to increase the capacity. Its attachment – with tripod screw – is quick and easy. (Order no. 16 063)

WRIST STRAP FOR LEICA MULTIFUNCTION HAND GRIP SL

Together with the Leica Multifunction Hand Grip SL, this wrist strap provides a secure hold on the camera, particularly when it is being carried and when using long and heavy lenses. (Order no. 16 004)

LEICA AUDIO ADAPTER AA-SCL4

The audio adapter M allows sound recording in stereo for video recordings. When mounted on the accessory shoe on the camera, all necessary connections are made simultaneously. (Order no. 16 067)

LEICA REMOTE RELEASE CABLE RC-SCL4

The main use for this cable is to rule out any risk of camera shake caused by tripping the shutter with the camera's own release button.

(Order no. 16 070)

HDMI CABLE TYPE A

An HDMI connection to appropriately specified recording or review devices with the help of this cable allows the transmission of high-definition image data.

(Order no. 16 072)

MONITOR PROTECTION FILM

The film provides effective protection against scratches and dirt that could potentially damage the monitor screen. Additionally, it significantly reduces glare and allows pictures to be viewed with high contrast and clarity even in bright light without any distracting reflections. The Leica screen protection film set also includes a replacement film, an optical cleaning cloth, and a screen cleaning pad.

(Order no. 16 046)

LEICA CARRYING STRAP PROFESSIONAL

Made of black Codura.

(Order no. 16 037)

ADDITIONAL CHARGERS/BATTERIES

When often using the camera at several different locations, or for prolonged periods of time, it may be advisable to acquire additional chargers and batteries. For order numbers, see next section.

Important:

Only the accessories specified and described in these instructions, and/or by Leica Camera AG, may be used with the Leica SL.

REPLACEMENTS**Order no.**

Camera bayonet cap	16060
Camera Carrying Strap Professional, Cordura	16037
Rechargeable Li-Ion Battery BP-SCL4	16062
Battery Charger BC-SCL4 (including mains cables US [423-116.001-020] and EU [423-116.001-005], others depending on local market) ..	16065
USB 3.0 Micro-b Cable, 3m (approx. 10')	16071
Cover for contact array in baseplate	470-601.001-014

SAFETY AND CARE INSTRUCTIONS

GENERAL PRECAUTIONS

- Do not use your camera in the immediate vicinity of devices with powerful magnetic, electrostatic or electromagnetic fields (e.g. radio transmitters or high-voltage power lines, induction ranges, microwave ovens, television sets or computer monitors, video game consoles, cell phones, radio equipment).

If you place the camera on or very close to such devices, their magnetic/electrostatic/electromagnetic fields could interfere with picture recordings. Strong magnetic fields, e.g. from speakers or large electric motors, can damage the saved data or the pictures.

If the camera malfunctions due to the effects of magnetic/electrostatic/electromagnetic fields, turn it off, remove the battery, and then turn it on again.

- Protect the camera from contact with insect sprays and other aggressive chemicals. Petroleum spirit (cleaning solvent), 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. Sand and dust can damage the camera and memory cards. Take particular care when inserting and removing a 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 memory cards.
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.

Important:

Use only the accessories specified and described in these instructions or by Leica Camera AG with the camera.

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 appear slightly darker than normal. As soon as the monitor warms up, it will reach its normal level of brightness.
- The monitor is manufactured using a high-precision process. This ensures that, of the total of around 1.04 MP, 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 the recording.

Sensor

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

Condensation

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

CARE INSTRUCTIONS

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

For the camera

- To clean the camera, e.g. to remove marks and fingerprints, use only a soft, dry, lint-free cloth. Dirt in hard-to-reach corners of the camera body can be removed with a small brush. Stubborn dirt, e.g. in should first be wetted with a well-thinned cleaning agent and then wiped off with a dry cloth.
- All mechanically operated bearings and sliding surfaces on your camera are lubricated. Please remember this if you will not be using the camera for a long period of time. To prevent the lubrication points becoming gummed up, the camera shutter should be operated several times every three months. It is also recommended that you repeatedly move and use all other controls.

For the lens

- Normally, a soft hair brush is sufficient to remove dust from the outer lens surfaces. 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/104°F (without fabric softener, never iron!). Cloths for cleaning glasses that are impregnated with chemicals should not be used as they can damage the lens glass.
- The supplied lens caps also protect the lens from fingerprints and rain.

For the battery

- Rechargeable lithium ion batteries generate power through internal chemical reactions. These reactions are also influenced by the ambient temperature and humidity. Very high and low temperatures shorten the operating time and service life of the batteries.
- 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 (see the corresponding display). For very long storage periods, the battery should be charged for around 15 minutes twice a year to prevent total discharge.
- Even though lithium ion batteries are proofed against short circuits, always ensure that their contacts are protected against contact with metal objects such as paper clips or jewelry. A short-circuited battery can get very hot and cause severe burns.
- For the battery to charge, it must have a temperature of between 10°- 30°C/50-86°F (otherwise the charger will 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 a limited service life.
- Defective batteries should be disposed of at an appropriate collection point for proper recycling (see p. 159).
- Never throw batteries into a fire as this can cause them to explode.

For the charger

- If the charger is used in the vicinity of radio receivers, it can interfere with the reception; make sure there is a distance of at least 1m/3ft between the devices.
- When the charger is in use, it can make a buzzing noise – this is quite normal and is not a malfunction.
- When it is not in use, disconnect the charger from the mains as otherwise it uses a certain (very small) amount of power even when no battery is inserted.
- Always keep the charger contacts clean, and never short circuit them.

For the monitor

The monitor is equipped with an especially scratch-resistant glass cover. Further protection is possible by applying the protection film available as an accessory.

For memory cards

- While a recording is being saved or a memory card is being read, it must not be removed, and the camera must not be turned off or exposed to vibrations.
- For safety, memory cards should always be stored in an antistatic container.
- 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 saved data.
- Always remove the memory cards if you will not be using the camera for a long period of time.
- Do not touch the contacts on the rear of the memory cards and keep them free of dirt, dust, and moisture.
- It is recommended to format memory cards from time to time, as fragmentation occurs when deleting, which can block some of the memory capacity.

CLEANING THE SENSOR

The camera is equipped with an automatic sensor cleaning function.

Every time the camera is switched on, the sensor unit is subjected to ultrasonic vibrations which removes most of the dust or dirt particles adhering to the sensor cover glass.

If any particles remain in spite of this (depending on their size, they can be identified by dark spots or marks on the recordings) the camera can be sent to Leica Camera AG's Customer Care department (address: see p. 296) for the sensor to be cleaned at a cost, i.e. this cleaning is not included in the guarantee.

You can also perform the cleaning yourself, as the shutter is normally open, i.e. exposing the sensor.

Notes:

- Generally: To protect the camera against ingress of dust etc. into its interior, it is important always to have a lens or a cap attached to the camera body.
- For the same reason, change lenses quickly and in an environment that is as dust-free as possible.
- As plastic parts can easily pick up a static charge and then attract more dust, lens caps should only be stored for short periods in pockets in clothing.
- As far as possible, cleaning of the sensor should be performed in a dust-free environment to prevent further soiling.
- An 8x or 10x magnifying glass is very useful for the inspection before and after cleaning.
- Lightly adhering dust can be blown off the sensor cover glass using clean and, if necessary ionized gases such as air or Nitrogen. It makes sense to use a (rubber) bellows with no brush for this purpose. Special, low pressure cleaning sprays such as "Tetenal Antidust Professional" can also be used in line with their specified usage.

Important:

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

Storage

- If you are not using the camera for a longer period of time, we recommend that you:
 - Turn off the camera
 - Remove the memory cards
 - 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 set aside in strong sunlight without protection. Using the lens cap and keeping the camera in the shade (or immediately putting it away in the case) help to prevent damage to the interior of the camera.
- Store the camera preferably in a closed and padded container so that nothing can rub against 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 also used.
- To prevent the formation of fungus, do not store the camera in a leather case for extended periods of time.
- Note down the serial number of your camera, as this is extremely important in case of loss.

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APPENDIX

DISPLAYS

In the top panel display

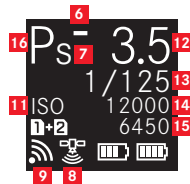
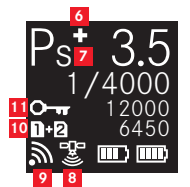
Initial view

(appears for 4s after turning on the camera, can be switched to the standard view at any time by tapping the shutter release button)



- 1 Camera type
- 2 Battery capacity (left for camera battery, right for hand grip battery if attached)
- 3 Time
- 4 Date
- 5 Camera status

During operation



- 6 a. +/- Exposure compensation set
b. +/-o/- Progression bracketing series: overexposed / correctly exposed / underexposed picture
- 7 Indication for shifted shutter speed/aperture combination with program mode
- 8 GPS status
- 9 WLAN (Wifi) active

10 -Memory card used, or warning messages

1 = When memory card is inserted in SD slot 1



2 = When memory card is inserted in SD slot 2

PC = When connected to PC via USB cable (remote connection)

NO CARD = No memory card inserted

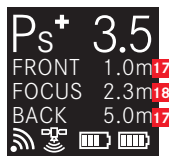
CARD SEARCH = Memory card status (inserted/ not inserted), when inserting memory card, temporarily after the camera is turned on

ERROR = Card error

- 11 **ISO**, alternates with  (Key lock) and/or +/-  (Bracketing or Interval) if these functions are set
- 12 Aperture
- 13 Shutter speed
- 14 ISO value
- 15 Remaining
- 16 Exposure control mode

With manual focusing

(when shutter release button is pressed halfway)



- 17 Depth of field limits
- 18 Focused distance

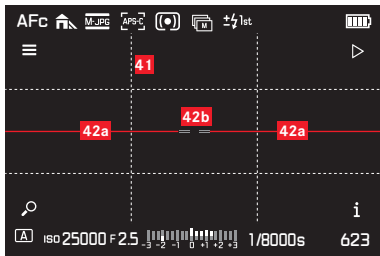
In the viewfinder / monitor

In photo recording mode



- 19** Focusing mode
- 20** White balance setting
- 21** File format
- 22** Sensor Format
- 23** Exposure metering mode
- 24** Drive Mode
- 25** Flash sync mode
- 26** HDR progress bar
- 27** Battery charge level
- 28** Soft key function – Switch to playback mode
- 29** Soft key function – Switch displayed information
- 30** Remaining pictures
- 31** Shutter speed

- 32** Light balance for manual exposure setting/Exposure compensation value
- 33** Aperture
- 34** ISO sensitivity
- 35** Exposure control mode
- 36** Soft key function – Enlarge the display
- 37** Soft key function – Enter main menu
- 38** Histogram
- 39** Autofocus metering zone
 - = AF Mode / Static & AF Field Size / 1 Point
 - = AF Mode / Static & AF Field Size / Field or AF Mode / Auto (Face Detection)
 - = AF Mode / Dynamic (Tracking)
- 40** Clipping / Zebra displays (not shown here, see p. 191 for explanation)



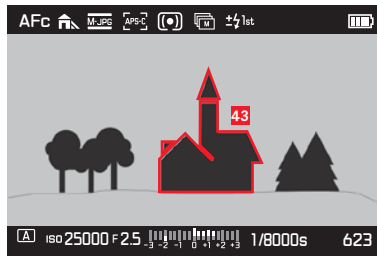
41 Auxiliary grid

42 Bubble level

42a Camera level (not tilted to the left or right): green horizontal lines

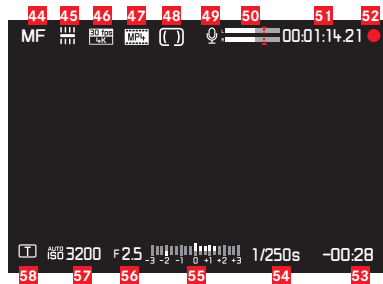
Camera tilted: red inclined lines

42b Camera level (not tilted up or down): central green lines
Camera tilted: red line above or below



43 Indication of in-focus edges (Peaking)

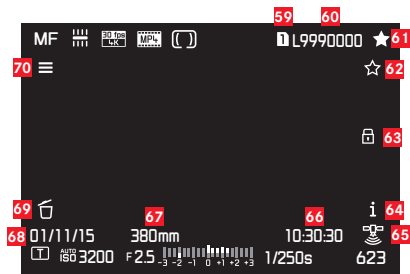
In video recording mode



- 44 Focusing mode
- 45 White balance setting
- 46 Video resolution / frame rate
- 47 Video file format
- 48 Exposure metering mode
- 49 Microphone
- 50 Audio level
- 51 Time code
- 52 Recording video
- 53 Recording time
- 54 Shutter speed
- 55 Light balance for manual exposure setting/Exposure compensation value
- 56 Aperture
- 57 ISO sensitivity
- 58 Exposure control mode

IN REVIEW MODE



Photo review



- 59** Slot number of memory card used
- 60** File number
- 61** Marking pictures as favorites
- 62** Soft key function – Rating the images
- 63** Displayed image protected
- 64** Soft key function – Switch displayed information
- 65** GPS Status
 - Position last determined a maximum of 6 min ago
 - Position last determined a maximum of 24hrs ago
 - Position last determined at least 24hrs ago, or no position data available
- 66** Time of recording
- 67** Focal length used
- 68** Date of recording
- 69** Soft key function – Deleting the images
- 70** Soft key function – Enter main menu

Video review



- 71** Slot number of memory card used
- 72** File number
- 73** Volume setting bar for audio playback
- 74** Audio playback on
( = audio playback off)
- 75** Playback progress bar
- 76** Elapsed time
- 77** Indication for playback of videos, time-lapse pictures and picture series,
 playback paused

GESTURE CONTROL

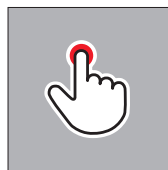
The touch-sensitive monitor of the Leica SL can be used for gesture-based operation in certain situations/modes. During menu control, this is the case for the submenu scales for exposure compensation and white balance. Gesture control is especially convenient during Review Mode, where it facilitates easy scrolling and enlargement.

In all such cases, gesture control serves as an alternative to conventional operation. For details, see the relevant sections.

Note:

A light touch is sufficient, there is no need to press firmly.

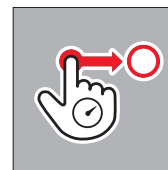
Available gestures



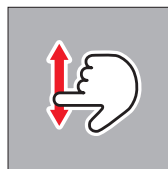
Briefly touch



Double tap



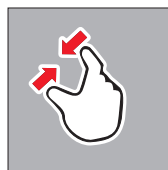
Long touch, drag and release



Swipe



Drag together



Drag apart



APPENDIX

MENU LIST

CAMERA	Default direct access	Available for direct access	In default FAVORITES	Available for FAVORITES	Page
Drive Mode		✓		✓	206/226/238/240
Focus Mode	TR	✓		✓	208/214
AF Mode		✓	✓	✓	212/213
AF Field Size		✓		✓	210/211
Exposure Metering	BL	✓		✓	216
Exposure Compensation	LV	✓	✓	✓	224
Exposure Bracketing		✓		✓	226
Interval		✓	✓	✓	238
Flash Settings				✓	228/229
Focus Limit (Macro)		✓		✓	209

IMAGE	Default direct access	Available for direct access	In default FAVORITES	Available for FAVORITES	Page
ISO	TL	✓		✓	202
White Balance	BR	✓	✓	✓	198-201
Photo File Format			✓	✓	195
Photo Aspect Ratio				✓	194
Sensor Format				✓	194
JPG Resolution				✓	195
JPG Settings				✓	195/197
Video File Format				✓	230
Video Resolution				✓	230
Video Settings			✓	✓	231-232

SETUP	Default direct access	Available for direct access	In default FAVORITES	Available for FAVORITES	Page
Storage Backup				✓	196
Format		✓	✓	✓	262
Auto Review					242
Capture Assistants				✓	191/192/215/233
AF Setup					210/211
Live View				✓	190/215
Copyright Information					259
User Profile				✓	256-258
Auto ISO Settings				✓	202/233
Key Lock		✓		✓	192
Display Shortcut Icons					189
Customize Control					182-185/205/210/ 213/218/223/237
Display Settings					188
Acoustic Signal					189
Power Saving					188
Lens Profiles				✓	241
Optical Image Stabilization		✓	✓	✓	203
EV Increment				✓	218
WLAN				✓	266
GPS			✓	✓	260
Date & Time					186/187
Language					186
Reset Camera					258
Reset image numbering					263
Camera Information					151/156/271

TECHNICAL DATA

Camera type Leica SL (Typ 601)

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

Usable lenses Leica SL, Leica T lenses and Leica M and R lenses using the respective adapters

Sensor 35mm (24x36mm) 24 MP

Resolution **JPG**: (24 MP) 6000x4000, (12 MP) 4272x2848, (6 MP) 2976x1984, **ONG**: 6000x4000 with aspect ratio 3:2

Photo file sizes **ONG**: 43.1MP, uncompressed only, **JPG**: different, depending on chosen size and image contents

Video recording format MP4, MOV

Video resolutions / frame rates

MP4	MOV
4096 x 2160 /24p	4096 x 2160 /24p
3840 x 2160/30p	3840 x 2160/30p
3840 x 2160/25p	3840 x 2160/25p
1920 x 1080/120p	-
1920 x 1080/100p	-
1920 x 1080/60p	1920 x 1080/60p
1920 x 1080/50p	1920 x 1080/50p
1920 x 1080/30p	1920 x 1080/30p
1920 x 1080/25p	1920 x 1080/25p
1920 x 1080/24p	1920 x 1080/24p
1280 x 720/120p	-
1280 x 720/100p	-
1280 x 720/60p	1280 x 720/60p
1280 x 720/50p	1280 x 720/50p
1280 x 720/30p	1280 x 720/30p
1280 x 720/25p	1280 x 720/25p
1280 x 720/24p	1280 x 720/24p

Storage media SD, SDHC, SDXC cards, both UHS I (slot 1+2) and UHS II (slot 2) standard usable

ISO range Automatic setting, ISO 50 to ISO 50000

White balance AUTO, Daylight, Cloudy, Shadow, Tungsten, HMI, Fluorescent warm, Fluorescent cool, Flash, Gray card, Gray card live view, Color temperature (2000, 2200, 2400, 2700, 3000, 3300, 3600, 3900, 4200, 4600, 5000, 5500, 6000, 6600, 7200, 8000, 8700, 9500, 10300, 11500, in K [Kelvin])

Autofocus system Contrast detection-based

Autofocus metering methods Single point, multi-point, spot, face detection, touch AF

Exposure modes Program, aperture priority, shutter priority, manual setting

Exposure metering modes Multi-zone, center-weighted, spot

Exposure compensation ±3EV in 1/3 or 1/2 EV increments

Exposure bracketing Three exposures in graduations up to ±3EV, adjustable in 1/3EV increments

Shutter speed range 60s to 1/8000s, B for long exposures up to 30min

Series exposures Approx. 10fps, 30 photos with consistent frequency, then depending on memory card properties

Flash modes Automatic, automatic with red eye reduction, on, on with red eye reduction, slow sync, slow sync with red eye reduction

Flash exposure compensation ±3EV in 1/3EV increments

Flash sync speed 1/180s

Self-timer Selectable delay time 2 or 12s

WLAN Complies with IEEE 802.11b/g/n standard (standard WLAN protocol), channel 1-11, encryption method: WiFi-compatible WPA™ / WPA2™, access method: Infrastructure operation

Power supply Rechargeable Lithium ion battery Leica BP-SCL4, rated voltage 7.2V, capacity 1860mAh (min.) (based on CIPA standard): approx. 400 pictures, charging time (after total discharge): approx. 160min, manufacturer: Panasonic Energy (Wuxi) Co., Ltd., made in China

Battery charger Leica BC-SCL4, input: AC 100-240V, 50/60Hz, automatic switching, output: DC 8,4V 0,85A, Weight: approx. 90g / 3.2oz, Dimensions: approx. 96 x 68 x 28mm / 3²⁵/₃₂ x 2¹¹/₁₆ x 1¹/₄" , manufacturer: Salom Electric (Xiamen) Co.,Ltd.

Body Front and rear body shells: Aluminium, milled and anodized, baseplate: rubber, grip and rear cladding: synthetic leather

Monitor 2.95" TFT LCD , 1.04 million pixels, 720x480 per color channel, touch control possible

Interfaces Micro USB port (3.0 High Speed), HDMI port, ISO accessory shoe with center and control contacts for external flash units, e.g. Leica SF 26, contact array in baseplate for optional vertical grip/handgrip

Tripod thread A ¼ DIN 4503 (¼")

Dimensions (W x H x D) 148 x 105 x 85mm / 5⁷/₃₂ x 4⁹/₃₂ x 3¹/₃₂"

Weight Approx. 771/847g / 27.2/29.9oz (with/without battery)

Scope of delivery Carrying strap, bayonet cap, battery, charger with 2 AC cables (US+EU), USB 3.0 micro-b cable, cover for contact array in baseplate, lens/monitor cleaning cloth

Software Image processing software (free download after registering the camera), Leica SL App for remote control and transfer of recordings, free download in Apple® App-Store® / Google®Play Store®, Leica Image Shuttle for remote control

LEICA PRODUCT SUPPORT

The Product Support Department at Leica AG can provide you with an answer to any technical questions relating to Leica products, including software supplied, either in writing, on the telephone, or by e-mail. They are also the contact point for purchasing advice and to order instructions. Alternatively, you can send us your questions using the contact form on the Leica Camera AG homepage.

Leica Camera AG
Product Support / Software Support
Am Leitz-Park 5
D-35578 Wetzlar
Telephone: +49(0)6441-2080-111 /-108
Fax: +49(0)6441-2080-490
info@leica-camera.com / software-support@leica-camera.com

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Leica Camera AG
Customer Care
Am Leitz-Park 5
D-35578 Wetzlar
Telephone: +49(0)6441-2080-189
Fax: +49(0)6441-2080-339
customer.care@leica-camera.com



my point of view

Leica Camera AG | Am Leitz-Park 5 | 35578 WETZLAR | DEUTSCHLAND
Telefon +49 (0) 644 1-2080-0 | Telefax +49 (0) 644 1-2080-333 | www.leica-camera.com

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