



LEICA SL2

Firmware update

FIRMWARE

Camera model	Firmware version
Leica SL2	3.0

PHOTO & VIDEO

_NEW: Exposure metering method **Highlight-Weighted**

_NEW: **IDR** (Intelligent Dynamic Range) for the optimization of darker areas

_NEW: Anytime manual access to Pixel Mapping

_EXTENDED: Additional settings for image properties (**Highlight** and **Shadow**)

_IMPROVED: Autofocus with improved algorithm

_IMPROVED: User profiles will now store the currently active operating mode and exposure mode



Download the full scope instruction manual here:

<https://en.leica-camera.com/Service-Support/Support/Downloads>

Please register via the following link if you would like to receive a printed copy of the full scope instruction manual:

www.order-instructions.leica-camera.com

PHOTO

_NEW: **Enhanced Live View** as auxiliary function for image composition in the dark

_NEW: Image Overlay

VIDEO

_NEW: Follow Focus

_NEW: HEVC video formats (H.265) and video formats with reduced bit rate at the same picture quality (L-GOP)

_NEW: Segmented Video as protection against data loss

_NEW: Waveform Monitor

_NEW: Configurable reference values (Color Bar and Test Sound)

_NEW: REC Frame for a more detailed display of a running recording

_NEW: No more recording time limitations

_EXTENDED: Optional import of custom LUT profiles

TABLE OF CONTENTS

TABLE OF CONTENTS	4	SEGMENTED RECORDING.....	27
FIRMWARE UPDATES.....	5	WAVEFORM MONITOR (WFM)	28
EXPOSURE METERING METHOD “HIGHLIGHT-WEIGHTED”	8	ADJUSTING VISUALIZATION	29
AUTOMATIC OPTIMIZATION OF DARKER AREAS	10	REFERENCE VALUES	30
PIXEL MAPPING.....	11	COLOR BAR	30
ADVANCED PARAMETERS FOR IMAGE PROPERTIES.....	12	TEST SOUND	31
SELECTING SETTINGS.....	13	APPLICATION	31
USER PROFILES.....	16	REC FRAME.....	32
LIVE VIEW SETTINGS.....	17	IMPORTING CUSTOM LUT PROFILES	33
ENHANCED LIVE VIEW.....	17	VIDEO GAMMA.....	33
PICTURE OVERLAY	18	HLG SETTINGS.....	33
TRANSPARENCY	18	L-LOG SETTINGS.....	33
IMAGE SELECTION	18	SETUP/MANAGEMENT OF LUT PROFILES.....	34
ACTIVATING THE FUNCTION.....	19	USING LUT PROFILES.....	36
FOLLOW FOCUS.....	20		
FUNCTION BEHAVIOR.....	20		
FOLLOW FOCUS MENU	21		
PREPARATION	22		
CONFIGURING A FOCUS POSITION.....	22		
CHANGING THE FOCUS POSITION	23		
APPLICATION	23		
ACCESS AS NEEDED.....	24		
AUTOMATIC SEQUENCE.....	24		
OTHER SETTINGS	25		
SPEED	25		
SUBSEQUENT FOCUS MODE.....	25		
NEW VIDEO FORMATS.....	26		

FIRMWARE UPDATES

Leica is continuously working on the further improvement and optimization of your camera. Since many camera functions are entirely controlled by software, some of these improvements and additions to the functional scope can be installed in retrospect. Leica offers firmware updates at irregular intervals, which you can download from our website.

Leica will notify you of any new updates, once you have registered your camera.

Find out which firmware version is currently installed

- ▶ Select **Camera Information** in the main menu
 - The current firmware versions are displayed.



More information about registering, firmware updates and how to download them to your camera, as well as any amendments and additions to this manual can be found in the customer area of our website at: club.leica-camera.com

EXECUTING A FIRMWARE UPDATE

Any interruption of a running firmware update may cause serious and irreparable damage to your equipment!

You will therefore have to take particular note of the following, when carrying out a firmware update:

- Do not switch off the camera!
- Do not remove the memory card!
- Do not remove the rechargeable battery!
- Do not remove the lens!

Notes

- A warning message will appear if the battery is insufficiently charged. Recharge the battery and then repeat the process described above.
- You will find additional device and country-specific registration marks and numbers in the **Camera Information** submenu.

PREPARATION

- ▶ Fully charge and insert the rechargeable battery
- ▶ The second SD memory card (where applicable) must be removed from the camera
- ▶ Any stored firmware files on the memory card must be removed
 - We recommend saving any recordings on the memory card and reformatting it before the update.
(Caution: Loss of data! All data stored on the memory card will be lost during formatting.)
- ▶ Download the latest firmware version
- ▶ Save the download to the memory card
 - Store the firmware file in the main directory of the memory card (not in a sub-directory).
- ▶ Insert the memory card into the camera
- ▶ Switch the camera on

UPDATING THE CAMERA FIRMWARE

- ▶ Preparation
- ▶ Select **Camera Information** in the main menu
- ▶ Select **Camera Firmware Version**
- ▶ Select **Start Update**
 - A prompt with information about the camera is displayed.
- ▶ Check the version information
- ▶ Select **Yes**
 - The prompt **Save profiles on SD Card?** appears.
- ▶ Select **Yes/No**
 - The update will start automatically.
 - The lower status LED will flash during this process.
 - Once the process has completed successfully, a relevant on-screen message and prompt to restart the device will appear on screen.
- ▶ Switch the camera off and on again

Note

- Date & time, as well as the preferred language will have to be set up again after the restart. Relevant prompts will appear on screen.

UPDATING THE LENS FIRMWARE

Where available, you can optionally carry out firmware updates for lenses. The instructions provided for camera firmware updates apply.

- ▶ Preparation
- ▶ Select **Camera Information** in the main menu
- ▶ Select **Lens Firmware Version**
- ▶ Select **Start Update**
 - A prompt with information about the camera is displayed.
- ▶ Check the version information
- ▶ Select **Yes**
 - The update will start automatically.
 - The lower status LED will flash during this process.
 - Once the process has completed successfully, a relevant on-screen message and prompt to restart the device will appear on screen.
- ▶ Switch the camera off and on again

UPDATING THE ADAPTER FIRMWARE

Where available, you can optionally carry out firmware updates for adapters. The instructions provided for camera firmware updates apply.

- ▶ Preparation
- ▶ Select **Camera Information** in the main menu
- ▶ Select **Lens Firmware Version**
- ▶ Select **Start Update**
 - A prompt with information about the camera is displayed.
- ▶ Check the version information
- ▶ Select **Yes**
 - The update will start automatically.
 - The lower status LED will flash during this process.
 - Once the process has completed successfully, a relevant on-screen message and prompt to restart the device will appear on screen.
- ▶ Switch the camera off and on again

Note

- The relevant menu item will only be visible if an adapter is mounted and active.

EXPOSURE METERING METHOD “HIGH-LIGHT-WEIGHTED”

EXPOSURE METERING METHODS

The following exposure metering methods are selectable.

Factory setting: [Multi-Field](#)

	Spot
	Center-weighted
	Highlight-Weighted
	Multi-field

SPOT

This metering method is concentrated exclusively on a small area in the center of the image. The metering fields are joined together when the exposure metering method [Spot](#) is combined with the AF metering methods [Spot](#), [Field](#) and [Zone](#). Exposure metering will then occur at the point specified by the AF metering field, even if it is moved.

CENTER-WEIGHTED

This method considers the entire image field. The subject elements captured in the center will, however, impact on the calculation of the exposure value more so than areas around the edges.

MULTI-FIELD

This metering method is based on the detection of multiple values. These values are used in an algorithm to calculate an exposure value appropriate for a good rendering of the assumed main subject.

HIGHLIGHT-WEIGHTED

This method considers the entire image field. The exposure value will, however, be adjusted to very bright subject elements. That prevents the overexposure of central subject elements without having to measure them individually. This metering method is particularly useful for objects that are significantly more brightly lit than the rest of the picture frame (e.g. people in a spotlight), or that reflect the light significantly (e.g. white clothing).



- ▶ Select **Exposure Metering** in the main menu
- ▶ Select the desired metering method
(**Spot**, **Center-Weighted**, **Highlight-Weighted**, **Multi-Field**)
 - The selected metering method is displayed in the header line of the screen image.

Spot metering allows a shifting of the metering field:

- ▶ Press the joystick in the relevant direction

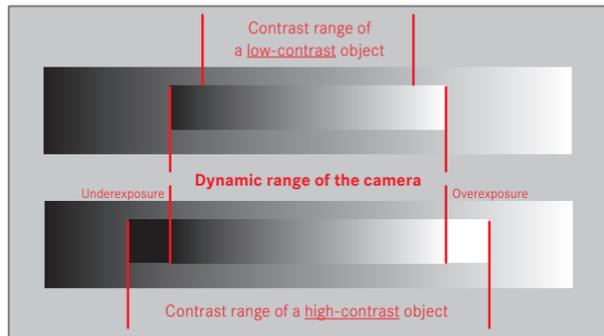
Notes

- The exposure information (ISO value, aperture, shutter speed and light balance with exposure compensation scale) will help to determine the settings required for correct exposure.
- The most important displays (ISO value, aperture and shutter speed) will also appear in the top display.

AUTOMATIC OPTIMIZATION OF DARKER AREAS

DYNAMIC RANGE

The contrast range of an object comprises all levels of brightness from the brightest to the darkest point in the image. All levels of brightness can be captured by the sensor, provided the contrast range of the object is lower than the dynamic range of the camera. In case of significant differences of brightness in the object (e.g. recordings of interior spaces with bright windows in the background, recordings with subject elements in shadow or directly lit by the sun, landscapes with dark areas and a very bright sky), the camera with its limited dynamic range will not be able to map the entire contrast range of the object. Information in 'edge areas' will be lost (under and overexposure).



iDR FUNCTION

The **iDR** (Intelligent Dynamic Range) function allows an optimization of the darker areas. Object details become much clearer. This function will only affect recordings in JPG format.



You can specify beforehand if and to what extent you want to optimize darker areas (**High**, **Standard**, **Low**, **Off**). In the **Auto** setting, the camera will automatically select the right setting depending on the contrast range of the object.

In addition to that setting, the effect also depends on the exposure settings. The function will have the strongest effect in combination with low ISO values and fast shutter speeds. The effect is less pronounced with higher ISO values and/or slower shutter speeds.

Factory setting: **Auto**

- ▶ Select **JPG Settings** in the main menu
- ▶ Select **iDR**
- ▶ Select the desired setting (**Auto**, **High**, **Standard**, **Low**, **Off**)

Note

- The optimization of darker areas will slightly reduce differentiation in very bright areas.

PIXEL MAPPING

Defective pixels may appear on the image sensor of digital cameras over time. The camera compensates for these defective pixels automatically by calculating the data captured by other pixels surrounding defective ones. This feature requires a process known as “pixel mapping” to recognize and register defective pixels. The camera does this automatically every two weeks. The function can also be accessed manually if needed.

- ▶ Select **Camera Settings** in the main menu
- ▶ Select **Pixel Mapping**
- ▶ Select **Yes**
 - Pixel mapping is executed. The process may take a few seconds.
 - The message **Please Restart the Camera** appears.
- ▶ Switch the camera off and on again

ADVANCED PARAMETERS FOR IMAGE PROPERTIES

The image properties of JPG pictures and video recordings can be changes slightly using several parameters. These are compiled in pre-configured profiles. Previously, only setting options for **Contrast**, **Sharpness** and **Saturation** were provided. These options have now been complemented with the parameters **Highlight** and **Shadow**. These parameters can be adjusted for all available profiles (**Saturation** only for color profiles).

HIGHLIGHT/SHADOW

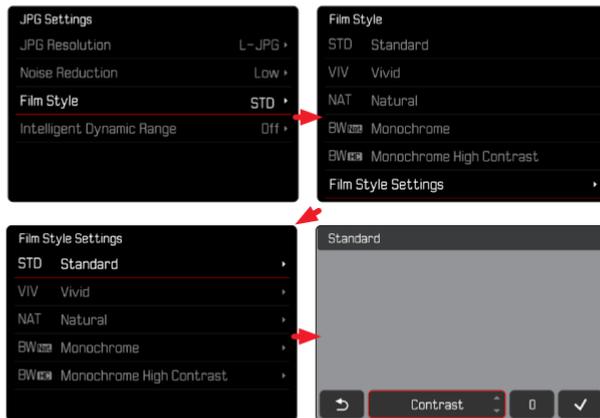
Depending on the exposure selected and the dynamic scope of the object, some details in brighter or darker areas may no longer be clearly visible. The parameters **Highlight** and **Shadow** allow differentiated control over very brightly or less brightly lit areas. Where, for example, part of the object is in shadow, a higher setting for **Shadow** can help brighten these areas to make details more visible. Conversely, existing shadows or particularly bright areas might be additionally emphasized for reasons of image composition. Positive values will brighten the targeted areas, while negative values will darken them.

Selecting a profile (photo)

- ▶ Select **JPG Settings** in the main menu
- ▶ Select **Film Style**
- ▶ Select a profile

Adjusting a profile (photo)

- ▶ Select **JPG Settings** in the main menu
- ▶ Select **Film Style**
- ▶ Select **Film Style Settings**
- ▶ Select a profile
- ▶ Select **Contrast/Sharpness/Saturation/Highlight/Shadow**
- ▶ Select the desired level
(-2, -1, 0, +1, +2)
- ▶ Confirm

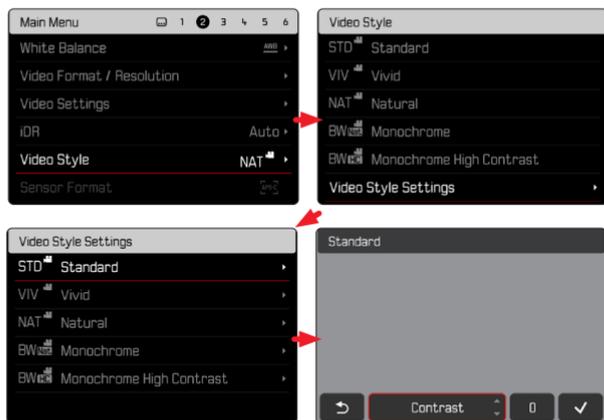


Selecting a profile (video)

- ▶ Select **Video Style** in the main menu
- ▶ Select a profile

Adjusting a profile (video)

- ▶ Select **Video Style** in the main menu
- ▶ Select **Video Style Settings**
- ▶ Select a profile
- ▶ Select **Contrast/Sharpness/Saturation/Highlight/Shadow**
- ▶ Select the desired level
(-2, -1, 0, +1, +2)
- ▶ Confirm



Note

- The **Video Style** function is unavailable if any other setting but **Off** is selected for **Video Gamma**.

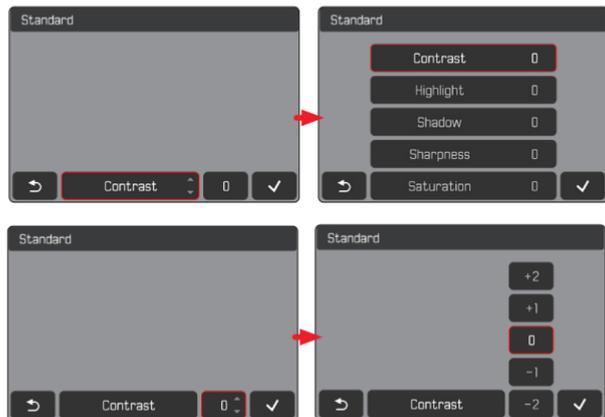
SELECTING SETTINGS



- A “Back” button
(Exit without saving)
- B “Parameter” button
- C “Setting” button
- D “Confirm” button
(Save and exit)

The operation is slightly different, depending on whether the settings are done via key control or touch control.

The screen image will remain visible continuously while settings are being adjusted. The result of the setting can be observed directly.



Using button control

Navigating between buttons

- ▶ Press the joystick left/right
 - An active button is indicated by a red frame.

Applying setting

- ▶ Press the joystick up/down
 - The button toggles directly between each of the options.
- or
- ▶ Press the joystick
 - All selectable options are displayed.
 - The “Parameter” button displays the currently set value for each of the parameter options.
- ▶ Press the joystick up/down
 - An active button is indicated by a red frame.
- ▶ Press the joystick
 - The options are no longer displayed.

Using touch control

- ▶ Tap the desired button
 - All available options are displayed for the buttons “Parameter” and “Setting”.
 - The “Parameter” button displays the currently set value for each of the parameter options.
- ▶ Tap the desired alternative

SAVE

- ▶ Select the “Confirm” button

CANCEL

- ▶ Select the “Back” button

USER PROFILES

In addition to all other settings, user profiles will now also save the currently active operating mode (Photo/Video) and the video exposure mode (P/A/S/M). This will facilitate a seamless and intuitive switchover between requirement profiles.

LIVE VIEW SETTINGS

The function **Exposure Preview** will now be part of the menu item **Live View Settings**. The Leica SL2 furthermore receives a Live View mode, which is optimized specifically for very dark shooting situation.

ENHANCED LIVE VIEW

Image composition is often difficult in very dark environments (e.g. at night), as the objects are barely visible. The function **Enhanced Live View** will assist the image composition in such situations. The image is enhanced in Live View based on a significant increase in the ISO value and a reduced refresh rate. Picture quality will not be impacted. Due to technical issues, there will, however, be image noise and severe tracer effects in Live View mode. This function will only be active in very low ambient light.

- ▶ Select **Live View Settings** in the main menu
- ▶ Select **Enhanced Live View**
- ▶ Select **On/Off**

Notes

- The function will be inactive even if **Enhanced Live View** is set to **On** if there is sufficient ambient light.
- In AF mode, the function **Enhanced Live View** will be intermittently inactive during range metering.
- **Focus Peaking** will be unavailable when **Enhanced Live View** is set to **On**.
- Depending on the selected exposure mode and other settings, Live View will display an exposure preview when the shutter button is tapped and held (see section “Exposure Control” in the long-form manual).

PICTURE OVERLAY

Leica SL2 allows a transparent overlay over previous recordings as an image composition tool. That way, objects can be recorded from the exact same position at different times, or various objects can be aligned exactly against the same background in multiple recording sessions. The transparent overlay image will not be visible in the finished recording.

One usage scenario would be the creation of an image series in front of a tree across an entire year. The precise alignment of the image would also allow the creation of a time lapse recording.



Note

- It may not be possible to render files with this camera that were not recorded with this device. This limitation also affects the Overlay function.

TRANSPARENCY

The transparency of the overlay image can be adjusted in line with e.g. lighting conditions.

- ▶ Select **Image Overlay** in the main menu
- ▶ Select **Transparency**
- ▶ Select **High/Low**

IMAGE SELECTION

Any image from the memory card can be selected for the image overlay.

- ▶ Select **Image Overlay** in the main menu
- ▶ Select **Choose Overlay Image**
 - The Image Selection display appears.



- In Image Selection view, all recorded images appear in full screen mode. An overview of all images in thumbnail size is not available. The info displays can be accessed as before.

Browsing through the images

- ▶ Press the joystick left/right

or

- ▶ Turn the thumbwheel

or

- ▶ Swipe to the left or right

Selecting a recorded image

- ▶ Press the thumbwheel / the joystick

or

- ▶ Directly select the control element “Confirm”

Resetting the function when switching off the camera

The function settings can optionally be reset when switching off the camera.

- ▶ Select **Image Overlay** in the main menu

- ▶ Select **Reset on Turn Off**

- ▶ Select **On/Off**

- The image selection and the setting for **Use Overlay Image** will remain intact after the camera is switched off if **Off** is selected.

ACTIVATING THE FUNCTION

- ▶ Select **Image Overlay** in the main menu

- ▶ Select **Use Overlay Image**

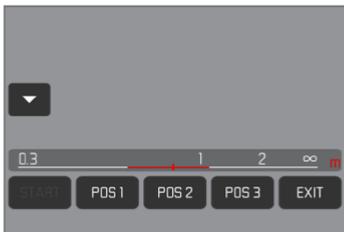
- ▶ Select **On/Off**

FOLLOW FOCUS

This function facilitates automatic transitions to specified focus settings (focus positions). Up to three such focus positions can be pre-configured and optionally be set up with a delay time. When a focus position is accessed, the camera will automatically focus on the set distance. The transition will then be achieved smoothly and with a configurable speed. That way, soft, almost unnoticeable transitions are created. Prerequisite is that the relevant distances are known beforehand.

The specified focus positions can be accessed individually or in an automated sequence.

- ▶ Select **Focusing** in the main menu
- ▶ Select **Focus Mode**
- ▶ Select **Follow Focus**
- ▶ Select **Focus Position**
 - “Follow Focus” is activated. The Follow Focus menu appears.



- The Follow Focus menu remains visible until the function is exited.

FUNCTION BEHAVIOR

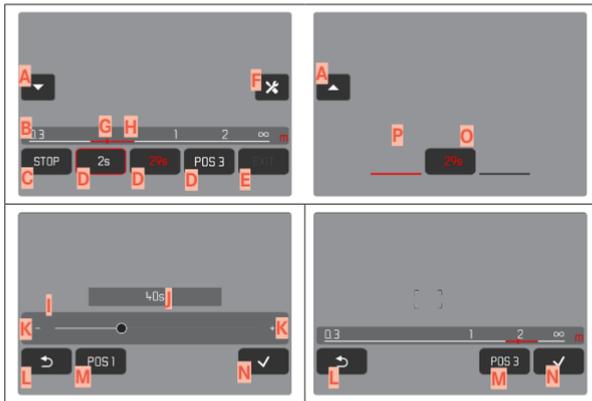
The function continues to run regardless of whether the camera is currently recording. All operating procedures described in the following can therefore also occur while actively recording. It is also possible to start and stop a recording during an active focus sequence, or to exit the Follow Focus menu while recording.

Notes

- The following limitations apply while the function is active:
 - Depending on assignments, not all FN buttons may be available.
 - EVF is unavailable.
- **Follow Focus** is not available under the following conditions:
 - Recordings in slow motion
 - When using a lens adapter
 - When using MF lenses
 - When using lenses with AF/MF switch if the MF setting is selected

FOLLOW FOCUS MENU

All operation is done via touch control only.



- A** Button for expanding/reducing the Follow Focus menu
- B** Focus position settings bar
(Sharp focus in m or ft)
- C** “START” button
(Initiates the automatic focus sequence)
- D** Focus positions
- E** “EXIT” button
(Exits the Follow Focus menu)
- F** “Edit” button
(Only for pre-configured focus positions)
- G** Display of the set distance
- H** Display of the distance range in clear focus
(Depth of field range, depending on the in-focus distance and the exposure value)

- I** Delay time settings bar
- J** Set delay time
- K** Buttons “Plus” and “Minus”
- L** “Back” button
- M** Currently selected focus position
- N** “Confirm” button
- O** Running delay time
- P** Currently set focus position

The Follow Focus menu can be reduced to essential elements for better visibility.

- ▶ Tap button **A**
 - The Follow Focus menu toggles between full and reduced view.

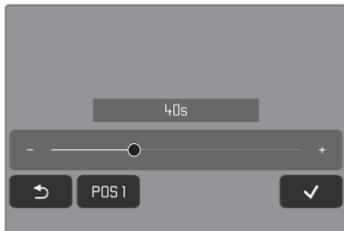
Note

- Focus positions cannot be selected directly in reduced view.

PREPARATION

CONFIGURING A FOCUS POSITION

- ▶ Tap the desired focus position
 - The delay time settings menu appears.



Setting a delay time

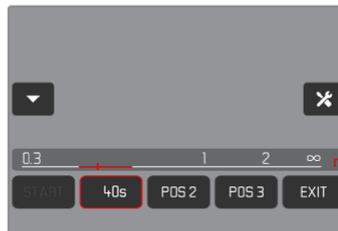
Delay times up to 120 s can be set (default setting is 0 s).

- ▶ Tap the buttons “Plus” and “Minus”
 - The selected time is displayed above the settings bar.
- or
- ▶ Tap the desired setting directly via the settings bar
 - The selected time is displayed above the settings bar.
- ▶ Tap the “Confirm” button
 - The distance settings menu appears.

Setting the distance



- ▶ Select the desired distance
 - Focusing can be done manually or via AFs (joystick/Touch AF). The shutter button remains locked.
 - The settings bar displays the set distance.
- ▶ Tap the “Confirm” button
 - The display returns to the top level of the Follow Focus menu.



- The currently set focus position is indicated by a red frame. The settings bar displays the set distance.
- The set delay time is displayed instead of **POS 1**, **POS 2** or **POS 3**.

Canceling the setting

- ▶ Tap the “Back” button
 - The display reverts to the previous menu level.

CHANGING THE FOCUS POSITION

- ▶ Tap the desired button
 - The “Edit” button appears.



- ▶ Tap the “Edit” button
 - Any running delay time or focus setting is canceled.
 - The delay time settings menu appears.
- ▶ Define a new focus position

APPLICATION

The **Follow Focus** function can be utilized in two ways.

- The pre-configured focus positions are accessed individually as needed.
- All configured focus positions are selected automatically in sequence.

Both methods can also be combined.



ACCESS AS NEEDED

The configured focus positions can be accessed any number of times.

With delay time:

- The active delay time is displayed in red and counts down.
- After that, the transition to the next desired focus position begins.

Without delay time:

- The transition to the next desired focus position is immediate.
- ▶ Tap the desired focus position
 - The camera focuses with the set speed on the configured distance (once the delay time has elapsed - if set).



Note

- The transition to a focus position can be canceled via the “STOP” button, as long as it is not yet completed.

AUTOMATIC SEQUENCE

An automatic sequence of focus positions can be initiated if at least two positions have been configured.

START

- ▶ Configure at least two focus positions
- ▶ Tap the “START” button
 - The “START” button becomes “STOP” for the duration of the sequence.
 - All configured focus positions will be accessed in sequence (once the set delay time has elapsed - if any).



All other buttons are deactivated while the focus sequence runs.

Note

- The automatic focus sequence can be run any number of times. The focus sequence will automatically revert to the first position when it is restarted.

CANCEL

- ▶ Tap the “STOP” button
 - The running focus sequence is canceled.

Initiating the automatic focus sequence directly at the beginning of the recording

The automatic focus sequence can be initiated directly at the beginning of the recording.

- ▶ Select **Focusing** in the main menu
- ▶ Select **Focus Mode**
- ▶ Select **Follow Focus**
- ▶ Select **Start FF with Recording**
- ▶ Select **On/Off**

Exiting the function

- ▶ Canceling a running sequence
- ▶ Tap the “EXIT” button
 - The “EXIT” button is unavailable while a focus sequence is running.

OTHER SETTINGS

SPEED

The speed at which one focus position transitions to the next can be configured. This setting will then apply for all transitions.

- ▶ Select **Focusing** in the main menu
- ▶ Select **Focus Mode**
- ▶ Select **Follow Focus**
- ▶ Select **Speed**
- ▶ Select the desired setting
(**Very Low**, **Low**, **Medium**, **High**, **Very High**)

SUBSEQUENT FOCUS MODE

After exiting, you can switch automatically to a pre-configured focus mode (e.g. **Mf**) or to the most recently used focus mode.

- ▶ Select **Focusing** in the main menu
- ▶ Select **Focus Mode**
- ▶ Select **Follow Focus**
- ▶ Select **Return to**
- ▶ Select the desired setting
(**Intelligent AF**, **Afs**, **Afc**, **Mf**, **Previous setting**)

NEW VIDEO FORMATS

The available video formats were re-arranged to be more intuitive. The formats used for slow motion recordings are now easier to recognize. Furthermore, other video formats with 10-bit encoding were added, including some with highly efficient HEVC video compression (H.265). More formats with reduced bit rate at full picture quality (Long GOP) were added.

SEGMENTED RECORDING

Videos recorded in MOV format can be automatically segmented into individual one-minute files and saved. This method protects recordings against technical errors during the write process, in case the recording is interrupted. All previously saved one-minute segments will remain intact.

Factory setting: **Off**

- ▶ Select **Video Settings** in the main menu
- ▶ Select **Segmented Video**
- ▶ Select **On/Off**

Notes

- This function is not available for the **MP4** video format setting.
- The individual recordings will not be played back automatically in sequence.
- Essential for segmentation is the playback time of the finished recording. Slow motion recordings will be segmented in a way that the finished recordings will have a playback time of about one minute.

WAVEFORM MONITOR (WFM)

The Waveform Monitor (WFM) allows a quick and safe assessment of the luminance and color distribution within the current scene. Image faults become more easily apparent, which might otherwise be missed while recording with a smaller screen.

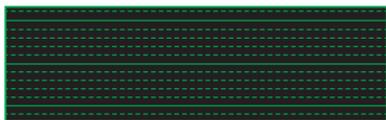
Factory setting: **Off**

- ▶ Select **Waveform Monitor** in the main menu
- ▶ Select **On/Off**



The Waveform Monitor displays the luminance distribution for the entire visible image as a percentage (IRE). A value of 0% corresponds to a luminance value of 16 (in 8-bit encoding), while a value of 100% corresponds to a luminance value of 235 (in 8-bit encoding).

The visualization displays solid lines at 0%, 50%, and 100%. The dotted lines below them represent the values 109% and -4%.



Notes

- Waveform Monitor and Histogram cannot be displayed at the same time.
- The Waveform Monitor will not be displayed on the external device during HDMI output.
- Der Waveform Monitor is available only in shooting mode, not in playback mode.
- The exposure compensation and ISO values (ISO only when accessed directly) can be adjusted using a menu bar. The screen image remains visible and shows the immediate effect of the selected setting. Should the Waveform Monitor be active, then it will remain visible in these cases, and will also display the effects of the latest setting.

ADJUSTING VISUALIZATION

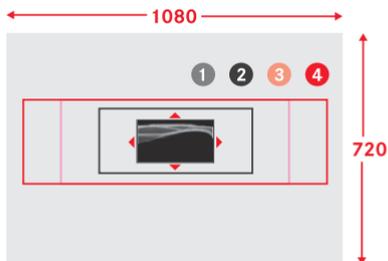
The size and position of the Waveform Monitor can be adjusted to current requirements.

Starting the adjustment

- ▶ Touch and hold the LCD panel on the Waveform Monitor
 - Red triangles will appear at two corners of the Waveform Monitor. All other displays disappear.

Adjusting the size

The size is adjustable in four increments.



- ▶ Turn the thumbwheel
(to the right: larger, to the left: smaller)
- or
- ▶ Two-finger pinch/spread

Note

- The Waveform Monitor will appear smaller in the EVF than on the LCD panel.

Adjusting the position

You can choose any position.

- ▶ Press the joystick in the relevant direction
- or
- ▶ Tap the desired point on the LCD panel

Completing the adjustment

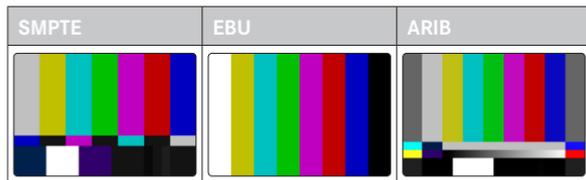
- ▶ Press the joystick/thumbwheel
- or
- ▶ Tap the shutter button

REFERENCE VALUES

A color bar can be displayed and also recorded for calibration purposes. A test sound with a frequency of 1 kHz will (optionally, three volume settings) be emitted.

COLOR BAR

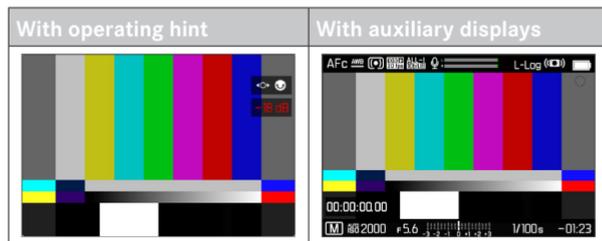
A choice of three color bars (SMPTE, EBU, ARIB) is available.



- ▶ Select **Video Settings** in the main menu
- ▶ Select **Color Bar**
- ▶ Select the desired setting
(Off, SMPTE, EBU, ARIB)

OPERATING HINT/AUXILIARY DISPLAYS

Regardless of the current setting of Info Profile, the test image always appears completely free at first. An operating hint is displayed in the top right corner. The info displays can be accessed at any time.



Displaying information and auxiliary displays

- ▶ Press the FN button with the function assignment **Toggle Info Levels**
 - In factory settings, that will be the **FN** button at the back left, next to the LCD panel (25).
 - The operating hint is hidden and the most recently active Info Profile is displayed.
 - The following auxiliary displays will not be displayed while the color bar is visible: Focus Peaking, Histogram, Level Gauge, Clipping/Zebra.

Ending the display of the color bar

- ▶ Press the joystick/thumbwheel
 - The color bar and test sound end.

TEST SOUND

A test sound with a frequency of 1 kHz will be emitted whenever the **Color Bar** is accessed. Der operating hint at the top right of the image shows the current volume. Available setting options: **OFF**, **-20 dB**, **-18 dB**, **-12 dB**. The selected setting will remain for all subsequent accesses.

Factory setting: **-18 dB**

Setting the volume

- ▶ Press the joystick left/right

or

- ▶ Turn the thumbwheel to the left/right

Notes

- The operating hint will be hidden after ten seconds have elapsed without any change to the volume setting and will reappear, when the next change is made.
- During HDMI output, the test sound will only be output on the connected device and not on the camera.
- During HDMI output, the test sound will be output on the connected device even if the menu item **HDMI Output** is set to **Without Audio**.
- During HDMI output, the operating hint will only be displayed in Live View mode of the camera, and not on the external device.

APPLICATION

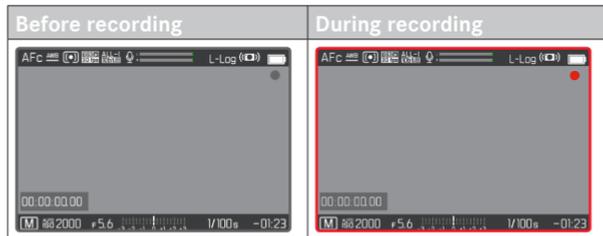
For HDMI output, the reference values are used for the configuration of the external device. The reference values can be irrespectively recorded at the start of a video for later use in post-production.

- ▶ Select the desired color bar
- ▶ Set the volume or mute the test sound
- ▶ Display Info Displays as needed
- ▶ Press the shutter button
 - Start the recording. The test sound is no longer output via the speakers, but will still be recorded.
- ▶ Press the joystick/thumbwheel
 - The color bar and test sound end.
 - Recording continues.

REC FRAME

A flashing red dot signifies a running video recording. The option REC Frame offers an even better visualization of the process. With the option set to **On**, the entire screen content will be framed. This frame appears in bright red during a running recording and will otherwise be gray.

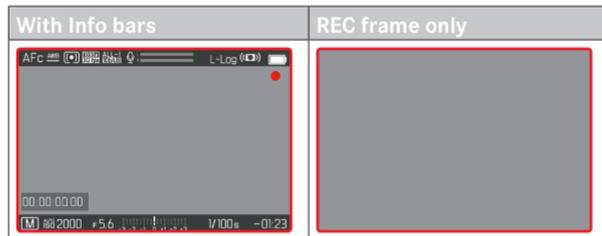
Factory setting: **Off**



- ▶ Select **Video Settings** in the main menu
- ▶ Select **REC Frame**
- ▶ Select **On/Off**

Quick option for hiding/displaying the REC Frame

The red dot is part of the info bars and is displayed or hidden alongside them (via the Info profiles). The recording status will still be displayed via the REC frame, without impeding the view of the image content. The REC frame can also be displayed or hidden while recording.



- ▶ Assigning the **REC Frame** setting to an FN button (see full scope instruction manual)
- ▶ Press the FN button
 - Displays/hides the REC Frame.

IMPORTING CUSTOM LUT PROFILES

Leica SL2 now also supports the import of custom LUT profiles.

VIDEO GAMMA

Video gamma can be set to HLG and L-Log or can be deactivated altogether.

Off	Optimization for playback compatible with all screen/TV devices in compliance with the BT.709 standard.
HLG	Optimization for HDR-capable UHD-TV devices.
L-Log	Optimization for professional reworking, e.g. color grading.

Factory setting: Off

- ▶ Select **Video Settings** in the main menu
- ▶ Select **Video Gamma**
- ▶ Select the desired setting
(Off, HLG, L-Log)

Notes

- **Video Gamma** is not available under the following conditions:
 - Recordings in MP4 format
 - Recordings in 8 bit
 - Recordings in slow motion
- The following functions are unavailable when **Video Gamma** is used:
 - **IDR**
 - **Video Style**

HLG SETTINGS

Sharpness and saturation can be set. The factory setting is a median value 0 in both cases.

- ▶ Select **Video Settings** in the main menu
- ▶ Select **Video Gamma**
- ▶ Select **Settings**
- ▶ Select **HLG**
- ▶ Select **Sharpness** or **Saturation**
- ▶ Select the desired setting
(-2, -1, 0, +1, +2)

L-LOG SETTINGS

The sharpness for L-Log can be adjusted. Additionally, various LUT profiles can be applied as preview when using L-Log. Saved recordings remain unaffected.

SHARPNESS

Factory setting: -2

- ▶ Select **Video Settings** in the main menu
- ▶ Select **Video Gamma**
- ▶ Select **Settings**
- ▶ Select **L-Log**
- ▶ Select **Sharpness**
- ▶ Select the desired setting
(-2, -1, 0, +1, +2)

SETUP/MANAGEMENT OF LUT PROFILES

You can import custom LUT profiles to the camera to optimally meet your LUT preview expectations.

- ▶ Select **Video Settings** in the main menu
- ▶ Select **Video Gamma**
- ▶ Select **Settings**
- ▶ Select **L-Log**
- ▶ Select **Custom LUT**
 - A list of six memory slots is displayed. Three are reserved for use with HDMI output, and three for internal camera use (LCD panel/EVF).
 - Filled memory slots will show the name of the saved LUT profile. Free memory slots display the word **Unused**.

EXAMPLE

In the following, the assignment shown below will be used for all subsequent figures. Two profile slots for internal camera display (LCD panel/EVF) are taken, all others are unused.

Custom LUT	
LUT 1 (EVF-LCD)	Sepia 12 ▶
LUT 1 (HDMI)	Unused ▶
LUT 2 (EVF-LCD)	Steel ▶
LUT 2 (HDMI)	Unused ▶
LUT 3 (EVF-LCD)	Unused ▶
LUT 3 (HDMI)	Unused ▶

Importing a custom LUT profile

- ▶ Download or export an LUT profile as a CUBE file
- ▶ Give the file a meaningful name (file name max. 8 characters, file ending “.cub”)
 - This file name (without the ending) will appear as a profile name in the camera after import. A later file name change on the camera will not be possible.
- ▶ Save the download to the memory card
 - The file must be stored in the main directory of the memory card (not in a sub-directory).
- ▶ Insert the memory card into the camera
- ▶ Select an unused memory slot
 - You will have to delete an existing profile first if there is no unused memory slot available.
 - The “Import” dialog appears. It displays the files found on the memory card.

LUT 1 (EVF-LCD)	
Bl-By LC	
Bl-By HC	
Sepia 12	
Steel	
WarmDown	
Vintage	

- The message **Import Failed** will appear if the camera does not find a compatible file.
- ▶ Select the profile to import
- ▶ Select **Yes**

Notes

- You can only import LUT profiles with the file ending “.cub”.
- Files with the ending “.cube” will not be recognized. These can, however, simply be renamed before saving them to the SD card.
- File names must be max. 8 characters (incl. spaces) long.
- Incompatible files will not be recognized.
- A maximum of six profiles saved to the memory card will be displayed. The profiles found on the card will be displayed chronologically in ascending order: the most recently saved profile will appear at the top.
- In rare cases, a particular combination of memory card and computer may result in a search returning only three profile files.
- Where two memory cards are in use, and both contain compatible files, only the files on SD1 will be considered.

Freeing a memory slot

- ▶ Select a profile
 - The “Delete” dialog appears.



- ▶ Select **Yes**

Notes

- The pre-configured profiles **Natural** and **Classic** cannot be deleted.
- A profile that is currently in use cannot be deleted.

USING LUT PROFILES

CHANGING THE OUTPUT CHANNEL

The user can choose to apply the LUT profile for output via HDMI or in the camera (LCD panel/EVF).

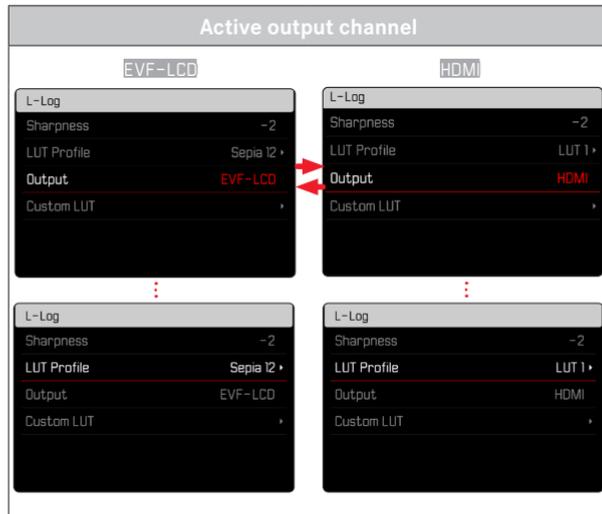
- ▶ Select **Video Settings** in the main menu
- ▶ Select **Video Gamma**
- ▶ Select **Settings**
- ▶ Select **L-Log**
- ▶ Select **Output**
- ▶ Select the desired setting
(**EVF-LCD**, **HDMI**)

Note

- The menu item **Output** is unavailable if the setting **Off** is selected for **LUT Profile**.



When toggling between the two output channels, the setting for the selected memory slot will remain unchanged. Since it is possible that different profiles are saved on the same slot depending on the output channel, it is possible that a different profile or an unused memory slot is selected. The name of the active profile will change accordingly next to the menu item **LUT Profile**. This does not apply for the pre-configured profiles, which exist on the same memory slot for both output channels.



SELECTING THE LUT PROFILE

In addition to the two pre-configured LUT profiles, three more memory slots are available for custom LUT profiles.

- ▶ Select **Video Settings** in the main menu
- ▶ Select **Video Gamma**
- ▶ Select **Settings**
- ▶ Select **L-Log**
- ▶ Select **LUT Profile**
 - The list of profiles available for the active output channel appears.
- ▶ Select the desired setting
(**Off**, **Natural**, **Classic**, **LUT 1**, **LUT 2**, **LUT 3**)

Note

- Unused memory slots appear in the list as **LUT 1**, **LUT 2**, and **LUT 3**. A memory slot filled with a custom LUT profile will display its name instead.

The list of selectable LUT profiles depends on the currently selected output channel (camera/HDMI). The channel is displayed next to the menu item **Output**. When the channel is set to **HDMI**, the selection list will display the profiles available for HDMI output. The setting **EVF-LCD** will therefore show the profiles available for camera display.

