LEICA SF C1

INSTRUCTION MANUAL
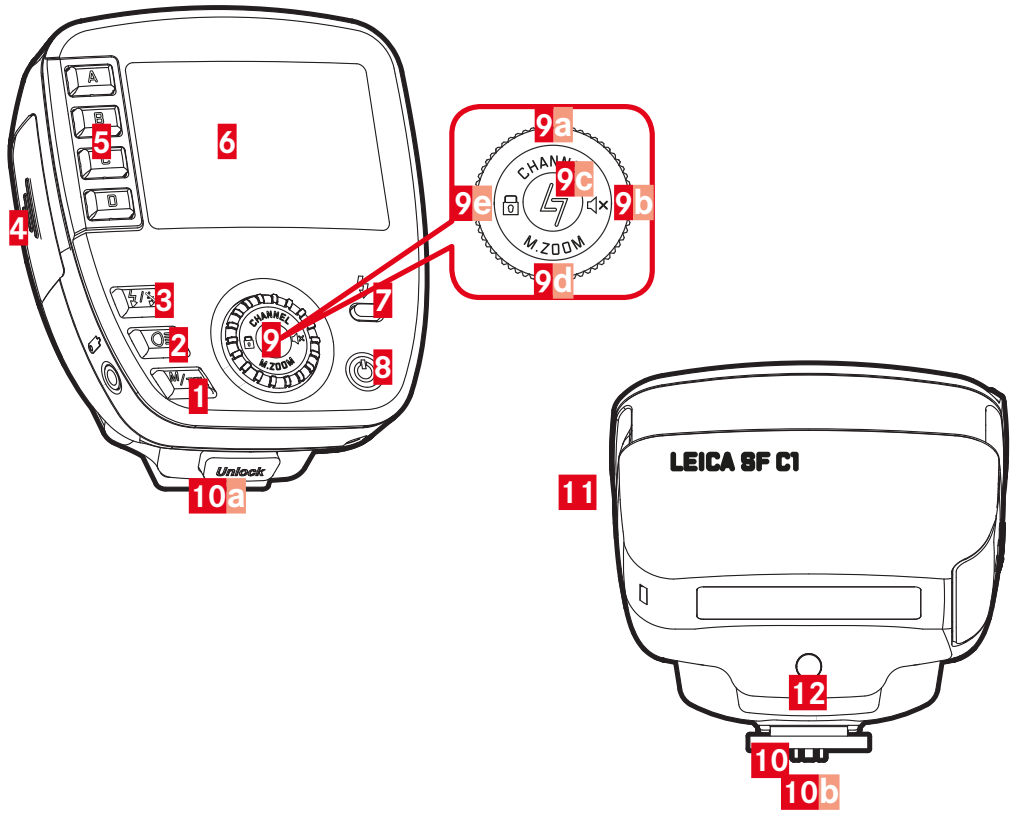
LEICA SF C1

PART DESIGNATIONS

1 Button for toggling between manual and TTL flash exposure control
2 On/Off button for modeling light
3 On/Off button for flash array
4 Battery compartment cover
5 Group keys
6 LCD panel
7 Ready LED/Test flash button
8 Main switch
9 Combination dial / rocker switch with settings for
   a Channel selection
   b Audible signal
   c Device pairing
   d Zoom mode/Focal length
   e Button lock
10 Mounting foot with
   a Unlock button
   b Locking pin
11 Memory card slot
12 AF assist light

FOREWORD

Dear Customer,

Thank you for purchasing the Leica SFC1 remote control – you have chosen an excellent product. We hope you will thoroughly enjoy your purchase.
Please read this manual in its entirety so that you can enjoy the full scope of functionality in this remote control.

MEANING OF THE VARIOUS REMARK CATEGORIES

Note:
Additional information

Important:
Failure to observe this information can result in damage to the camera, accessories, or the photos

Attention:
Failure to observe this information can result in personal injury

Note:
You will find the manufacturing date of your Leica SFC1 on the labels provided in the Warranty Card and/or on the packaging. The date format is **L Y M DD XXXXXXX**:

L	=	Leica
Y	=	Year (1-0 (=2011-2020))
M	=	Month (1-9 = Jan.-Sep., A = Oct., B = Nov., C = Dec.)
DD	=	Day (0-31)
XXXXXXX	=	Firmware version

TABLE OF CONTENT

SAFETY PRECAUTIONS

Attention:
Intended use
- Flash units are designed and certified for the lighting of objects for photography purposes only. These devices must not be used for any other purpose.
- Flash units must never be fired in proximity of flammable gases or liquids (benzene, solvents, etc.)! Non-compliance may pose EXPLOSION or FIRE HAZARDS!
- Avoid flash photography too close to the subject's eyes. The extreme light output can cause retinal damage in humans and animals, resulting in permanently impaired vision or even blindness.
- Never use flash photography in the direction of oncoming traffic, as cyclists and other traffic users may be momentarily blinded, which may cause accidents. Deactivate the flash unit and ensure that no flash will be triggered before taking pictures of oncoming traffic.
- Never touch the contacts in the mounting foot of the controller.
- Do not handle the remote control under any circumstances if the housing has been damaged and internal components are visible – HIGH VOLTAGE HAZARD!
- This also applies if there is a risk that water or other liquids could have penetrated the device case, or any kind of metallic or flammable object.
- In these cases, remove the batteries. Take great care when doing so.
- Even after battery removal, the high-voltage circuitry can still hold a sufficient charge to cause electric shock, burns or other injuries.

- The device must therefore continue to be kept safe from moisture (e.g. rain or splash water) and must not be handled with moist hands. Do not attempt to disassemble, repair, or modify the device! The device interior does not hold any components that could be repaired by a layman.
- Please only use the batteries specified and approved in this manual.
- Do not short-circuit batteries or expose them to excessive heat (e.g. direct sunshine or fire).
- Depleted batteries must never be thrown into a fire!
- Do not attempt to recharge single-use dry cell batteries (primary cells).

Important:
- Protect your flash unit against excessive heat and humidity. Do not store the flash unit in the glove compartment of your vehicle.
- Rapid changes in ambient temperature can result in condensation. Allow the flash unit time to acclimatize before using!
- Make sure that no opaque objects are positioned directly in front of the diffuser or directly on it when the flash is triggered. The diffuser must be clean. Failure to observe this can result in burn damage to the objects or the diffuser due to the extremely high energy output of the flash.
- The flash unit must only be used together with a camera-integrated flash if this can be fully opened out or extended.
- Do not use batteries that are damaged in any way!
- Depleted batteries can leak battery acid, which could damage the contacts. Always remove depleted batteries from the device.

DISPOSAL OF ELECTRIC AND ELECTRONIC EQUIPMENT

(Applies within the EU and for other European countries with active waste separation policies.)

This device contains electrical and/or electronic components and must therefore not be disposed of with normal household waste! Make sure you bring this device to an approved electronic waste collection point for recycling. The service is free of charge. If the device contains batteries, whether rechargeable or not, these must be removed first and disposed of separately in line with the applicable regulations. Please contact your local authority, waste disposal service, or the retailer from whom you purchased the device for more information on correct waste disposal.

C E Note:
Correct exposure values were evaluated as part of EMC testing within the scope of the CE certification.

⚠ Do not touch the SCA contacts!
Direct skin contact may in some instances result in damage to the device.

COMPATIBLE FLASH UNITS

Leica SF C1 is a remote control device for the wireless operation of system-compatible flash units arranged at a distance to the camera. These include Leica SF 60 and system-compatible flash units by Nissin[1].

Any number of SF 60 units can be operated and triggered with this remote control at distances up to 100 m[2]. The flash units can be operated simultaneously or can be grouped into max. three arrays[3]. Settings can be configured for all flash units in an array simultaneously, but fully independent of the units in the other arrays[4].

The following settings can be done remotely:

– Focal length and/or automatic operation of the zoom reflector
– manual flash control **M**, including power level selection, or automatic flash control **TTL** including optional flash exposure control

Please read the respective manual for configuring the Leica SF 60 settings.

Note:
The descriptions in this manual are generally limited to the use of the Leica SF C1 in conjunction with the Leica flash unit SF 60. In principle, they also apply to all other flash units that should be controlled remotely by the Leica SF C1. Please read their respective manuals for details on the operation and settings of other flash units.

[1] A firmware update for the flash unit may be required. Please contact your Nissin dealer for more information.

[2] Range at optimal conditions. The "line of sight" of the remote control to all controlled flash units must not be obstructed. Electric cables, metal parts, walls, as well as other 2.4 GHz remote controls and other devices in the vicinity can impact on the range.

[3] This applies to Leica SF 60. Other system-compatible and relevantly equipped flash units allow a configuration of up to four groups.

[4] Depending on the setting for SF C1, see p. 15

COMPATIBLE CAMERAS

The Leica SF C1 remote control is designed for use with Leica digital cameras of the S, SL, M, CL and Q series, which control flash exposure autonomously by way of internal TTL (Through the Lens) calculations. Leica SF C1 can, however, also be used with other Leica camera models when the flash units used are set to manual mode.

Using the Leica SF C1 remote control with third-party cameras may, however, be problematic. Similarly positioned contacts with differing electric values in the accessory shoes of other camera makes may result in incompatibility, which may negatively impact the function of one – or both – devices. Leica Camera AG can therefore not extend liability, and specifically not for damage outside the actual remote control.

Note:
Please also note the information provided regarding flash operation in the manual of your camera, and specifically details regarding the flash functions supported, the possible/necessary flash-related settings, and the information provided regarding flash-related displays of the camera used.

CAMERA TYPE-DEPENDENT FUNCTIONS

The flash functions listed below are available (some may depend on the equipment of the camera system used).
– Automatic flash sync speed control
– TTL flash mode
– Automatic fill-in flash mode
– Manual flash exposure compensation
– Normal or end-of-exposure synchronization (camera setting)
– Automatic high speed synchronization, if supported by camera model
– Automatic zoom reflector control
– Pre-flash function to prevent "red eye" (camera setting)
– Wireless triggering and control of flash exposure in system-compatible, camera-external flash units

Note:
If the camera model used does not supply the required data, or if the lens used does not have the required data contacts for the lens mount, functional restrictions can be expected.

PREPARATIONS

POWER SUPPLY

The remote control can be operated with the following power sources:

– 2 alkaline manganese batteries 1.5 V, type IEC LR03 (AAA/ Micro)

This type of battery is maintenance-free and suitable for moderate power requirements.

– 2 lithium-ion batteries 1.5 V, type IEC FR03 (AAA/Micro) This type of battery is maintenance-free, suitable for high power requirements and features low self-discharge.

– 2 nickel/metal-hydride (NiMH) rechargeable batteries 1.2 V, type IEC HR03 (AAA/Micro)

This type of rechargeable battery has a significantly higher capacity than nickel cadmium ones and are more environmentally friendly as they don't contain cadmium.

Important:

• Please only use the power sources listed above. Non-compliance may result in damage to the remote control.

• Always remove the batteries if the remote control will not be used for an extended period of time.

CHANGING THE POWER SOURCE

Once the ready LED **7** delays in lighting up or doesn't light up at all anymore, then the battery is depleted.

Procedure

1. Switch the remote control off (see also the next section)
2. Slide down and release the battery compartment cover
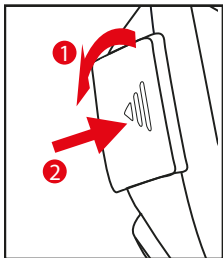   It will automatically spring open.
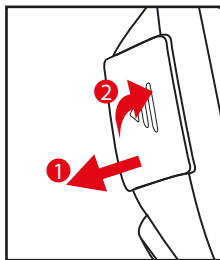
3. Replace/insert the batteries as shown in the illustration
   Make sure to get the polarity right!
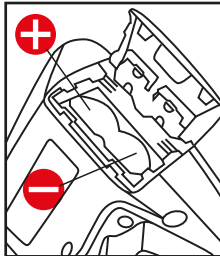
Attention:
Incorrectly inserted batteries can destroy the remote control!
Improper battery use poses an EXPLOSION HAZARD!

4. Close the battery compartment cover and slide it upward

Notes:
- Always replace both batteries at the same time.
- Both units should be of high quality and the same type.

BATTERY DISPOSAL

Never dispose of depleted batteries in household waste! Do your part for the environment and take your depleted batteries to a collection point.
Only dispose of batteries once they are completely spent. A battery counts as spent when the device it powers no longer functions correctly after extended battery use.
Cover the battery poles with adhesive tape to prevent a short circuit.
Germany: As a consumer, you are required by law to return used batteries. You can return batteries free of charge wherever they are sold. Additionally, your town or local authority offers free public collection points.
The following abbreviations can be found on the label of batteries containing hazardous materials:
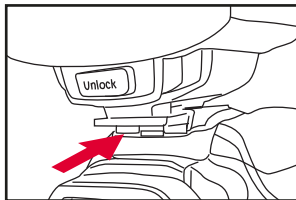Pb = battery contains lead
Cd = battery contains cadmium
Hg = battery contains mercury
Li = battery contains lithium

OPERATION

ATTACHING/DETACHING THE DEVICE

Attaching

1. Switch off the camera and the remote control (see next page)
2. Push the mounting foot of the controller into the camera's accessory shoe
   • You will hear the locking pin (**10b**) clicking into place.

The spring-loaded locking pin in the housing of the remote control will fold in if the camera housing doesn't offer a locking opening, so as to not damage the camera housing.

Detaching
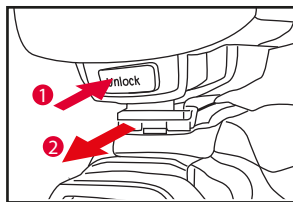
1. Switch off the camera and the remote control (see next page)
2. Press the lock release button (**10a**) and slide the remote control out of the accessory shoe of the camera

Important:
Never carry the combined weight of the camera, lens and remote control by simply holding the remote control housing. Make sure to support the weight of the camera by holding the camera and/or lens with the other hand!

SWITCHING ON AND OFF

Switching on

Press the ⏻ button **8**

Displays when the flash unit is switched on

• The ready LED **7** initially lights up in red and turns green, as soon as the flash is ready (after a few seconds, provided the battery has sufficient charge).
• The icons appear in the LCD panel **6**.

Notes:
• You can press the ready LED for a test flash.
• The flash readiness icon is always visible in the viewfinder of the camera, i.e. whether or not the tethered flash arrays (s. next page) are actually ready to fire.

Switching off

Press the ⏻ button

Auto power off

The icons in the LCD panel will get darker approx. 30 seconds after the last operation to save the battery. The remote control switches to "Ready" after about 2 minutes, which is signified by the ready LED flashing green. The remote control will power down completely if it is not used for more than 60 minutes, i.e. if no button is pressed and no combination dial is moved.

Reactivating the remote control from standby:
Press the combination dial **9** in any position

Note:
We recommend removing the power sources from the remote control if it will not be used for an extended period of time.

TETHERING THE REMOTE CONTROL TO THE FLASH UNIT

The devices must be tethered before the Leica SF C1 (sender) can be used to remotely control a Leica SF 60 (receiver). This tethering process only has to be done once for each flash unit. This process will ensure that the tethered flash unit will accept control signals from the tethered remote control only.

The tethering process

The Leica SF 60 and the Leica SF C1 must not be attached to the camera during the tethering process.

1. Switch off the Leica SF 60 and the Leica SF C1
2. On the Leica SF 60, simultaneously press the main switch and the directional pad in the middle at ↯ (≥ 3 s) until the ready LED flashes yellow and you can hear repetitive beeping
3. While the ready LED on the flash unit is still flashing, simultaneously press the main switch **8** and the combination dial **9** of the Leica SF C1 in the middle at ↯ (≥ 3 s) until the ready LED **7** flashes yellow as well

Note:

The Leica SF 60 and the Leica SF C1 should not be attached to the camera during the tethering process.

The beeping and flashing will stop, once the tethering is completed successfully.

Once the tether is correctly established, the Leica SF 60 flash unit can be triggered by pressing the ready LED on the Leica SF C1 remote control.

Should the tethering have been unsuccessful – signified by the continued flashing and beeping of the Leica SF 60 – then you will have to repeat the process with a lesser distance between the two devices.

Notes:

• Do not attempt any other device operations while tethering is in progress.
• The tethered connection will remain intact after the devices are switched off and on again and after a battery replacement. The connection will only be removed if the devices are reset to their factory settings.

SELECTING THE FLASH ARRAY

Sophisticated lighting scenarios, e.g. for studio portraits, often require the use of multiple flash units. The Leica SF C1 allows you to independently configure the Leica SF 60 and additional system-compatible flash units. The flash units are assigned to one of a total of eight groups (arrays), with each array configured separately by individually selecting each group on the Leica SF C1.
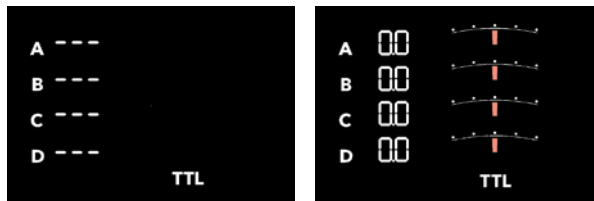
Note:
In the following, "array" denotes all flash units within a group, no matter if the group contains only one or several flash units.

Selecting an array
You can optionally configure all arrays simultaneously or individual-ly. The relevant arrays must be switched on or off accordingly. Only arrays that are switched on can be configured. The configura-tions will be applied to all arrays with switched on devices simultaneously, which means that devices that should not be configured must be switched off.

1. Press the desired array button **5**
   • The relevant array letter will flash.
2. Press the $\frac{4}{7}$ button **3**
   • An array that is switched off will appear as ▬▬▬▬ on the LCD panel instead of the current settings.
3. Press the array button again
   • The relevant array letter will light permanently.

Switching on an array is the same procedure.
• The display for an active array appears with the relevant settings after the second step (instead of ▬▬▬▬).

Notes on operation with the Leica SF 60:
• Please read the manual for instructions on how to select an array via the flash unit.
• Array **0** is unavailable.

CHANNEL SELECTION

Remote control occurs via a digital RF connection on the 2.4 GHz frequency band, which is subdivided into a large number of channels. This means that several photographers can use their SF 60-/SF C1 equipment in close proximity to each other without interfering with each other's devices.

The channel setting of each Leica SF C1, with which system-compatible flash units are to be controlled remotely, must match the setting of the controlled devices.

The SF C1 offers manually selectable channels (1 - 8) for this purpose:

1. Combination dial 9 top - press **Channel** - for approx 1 s
   • Â Appears in the LCD panel 6.
2. Turn the combination dial to the desired position
3. Again press the combination dial at the top for about 1 s to exit the function
   • The channel icon disappears from the LCD panel.

Notes on operation with the Leica SF 60:

• The channel selection on the Leica SF 60 is analog to the channel selection on the Leica SF C1 described on the left.
• Automatic mode (A) in the Leica SF 60 guarantees successful tethering to a Leica SF C1, no matter what channel is currently selected on that device.
• The Leica SF 60 Auto mode cannot be exited while tethering is enabled.
• When selecting a tethering channel manually on the Leica SF 60, the same channel must also be selected on the Leica SF C1. In case of an active tethering of the two devices, the channel setting of the Leica SF 60 can, however, be changed at any time via the Leica SF C1. Channel 1 is not available for tethering with the Leica SF 60.

All further operation of the flash units will then be done exclusively via the Leica SF C1. Please see the following page for a description of operations using the example Leica SF 60.

FLASH UNIT SETTINGS ON THE REMOTE CONTROL

FLASH MODES

The flash modes to be used on the tethered, remotely controlled flash units can be set via the Leica SF C1. Choose TTL or manual mode:

Press the **M/TTL** button **1** to change the mode.
- The LCD panel will show
  - **TTL** or **M** at the bottom
  - next to the array letters of all activated groups
- The Leica SF 60 will confirm successful settings with an audible beep, provided the function is switched on (see p. 19).

Note:
The setting is done via the Leica SF 60 for all flash arrays simultaneously.

FLASH EXPOSURE COMPENSATION AND PARTIAL LIGHT POWER LEVELS

Flash exposure compensation (in **TTL** mode) and/or partial light power levels (in **M** mode) can be set on the tethered, remotely controlled flash units via the Leica SF C1:

Turn the combination dial **9** until the desired compensation value (in **TTL** mode) or the desired power level (in **M** mode) appears on the LCD panel

Set the EV back to **0.0** if you want to return to normal operation without flash exposure compensation

Notes:
- A compensation value previously set via menu control on the camera will become void once a compensation value is entered via the Leica SF C1.
- This setting can be done for each flash array individually.

ZOOM REFLECTOR

The Leica SF 60 comes equipped with a zoom reflector for the adjustment of the illumination angle for lens focal lengths between 24 and 200 mm. This setting can also be done via the Leica SF C1:

1. Combination dial **9** bottom - press **M.ZOOM** - for approx 1 s
   • The current setting is showed in the LCD panel **6**.
2. Turn the combination dial to select the Auto setting - **A** or a specific focal length (settings are available in 9 increments from **24ᵐᵐ** to **200ᵐᵐ**)
3. Press the combination dial again on at the bottom for approx. 1 s to exit the function

Note:
This setting can be done for each flash array individually.

OTHER SETTINGS/FUNCTIONS

AUDIBLE SIGNAL

Settings done on a remotely set up Leica SF 60 via the remote control can optionally be confirmed with an audible beep. This signal gives you the assurance that your settings were applied correctly at larger distances between the devices.

On/Off

1. Combination dial 9 right – press ◀× – for approx 1 s
   • ◀ appears in the LCD panel 6.
2. Press the combination dial to the right again for approx. 1 s to activate the function
   • ◀ Disappears from the LCD panel.

Note:

This function is available on the Leica SF C1 and on the Leica SF 60. The function must be enabled on both devices to be active!

MODELING LIGHT

Some flash units come equipped with a permanent light source to help simulate flash illumination before the picture is taken. This function can make the arrangement and setup of remote flash units considerably easier. Please note, however, that the in comparison with flash illumination significantly weaker permanent light will allow you to only somewhat estimate the final image effect.

On/Off

1. Press the O≡ button 2
   • O≡ Appears on the LCD panel next to the letters of all activated arrays.
2. **Press the** O≡ button again
   • O≡ disappears from the LCD panel.

Note:

This function is available only in relevantly equipped flash units; Leica SF 60 does not come with modeling light.

BUTTON LOCK

All functions of the combination dial **9**, i.e. those selected by turning the wheel and the four functions activated/deactivated by pressing the wheel can be protected against accidental changes:
1. Combination dial left - press 🔒 - for approx 1 s
   • 🔒 appears in the LCD panel **6**.
2. Press the combination dial to the left again for approx. 1 s to remove the button lock
   • 🔒 disappears from the LCD panel.

AF ASSIST LIGHT

Autofocus metering systems in cameras rely on the contrast in the image subject. These cameras will activate an AF assist light if the contrast is insufficient due to low light. When the remote control is attached to a relevantly equipped camera, then the AF assist light **12** integrated in the remote control will switch on. It illuminates the image object, which the camera then focuses on.

The range of the AF assist light is approx. 0.7 to 5 m (with a 50 mm lens).

The Autofocus mode "Single-AF (S-AF)" must be enabled on the camera for it to activate the AF assist light and the remote control must be in readiness.

Some cameras only support a camera-internal AF assist light. Where that is the case, then the AF assist light of the remote control will not be activated (see camera manual).

Notes:
• Some low-light lenses (largest initial aperture ≥ 5.6) will limit the range of the AF assist light considerably.
• The AF assist light can be deactivated for short distances to the image subject in combination with a long lens. The AF mode will then not be available.

APPENDIX

MAINTENANCE AND CARE

Clean the device with a dry, soft cleaning cloth (e.g. microfibre). Use a slightly moist cloth to remove stubborn dirt.

Important:
Never use liquid cleaning agents. The components inside the device could suffer irreparable damage if cleaning liquid penetrates the housing.

TROUBLESHOOTING

Should the remote control ever not function as expected, then simply switch it off on the main switch and wait for about 10 s. Check that the mounting foot of the controller has been properly inserted into the accessory shoe of the camera and check the camera settings. Replace the batteries where needed. The remote control should now function correctly, once it is switched back on. Please contact your retailer if that is not the case.
In the following is a list of problems you may encounter in practical operation: Each issue lists possible causes and their remedies.

AF assist light of the remote control won't activate

– The remote control is not ready for use.
– The camera won't work in "Single-AF (S-AF)" mode.
– The camera only supports the function of its own internal AF assist light.
   Some camera types support the remote control AF assist light via the middle AF sensor in the camera.
   The AF assist light of the remote control will not work if any other sensor but the middle one is selected!
   → Activate the AF sensor in the middle!

The device doesn't automatically switch to flash sync speed

– The camera or the lens used has a central shutter (most compact cameras).
   → A switch to flash sync speed is unnecessary.
– The camera works with shutter speeds greater than the flash synch speed.
   Depending on the exposure mode chosen on the camera, no switch to flash sync speed will occur (see camera manual).

TECHNICAL DATA

Function
Digital 2.4 GHz remote control for Leica SF 60 and other system-compatible flash units, 8-channel manual selection or automatic channel selection

Function scope
Activation/deactivation of flash unit arrays (up to 8), setting the flash mode (**M** or **TTL**), the flash power level (**M**), or a flash exposure compensation value (**TTL**), the flash unit's zoom reflector, the modeling light individually by flash array

Range
Up to 100 m

AF assist light
Automatic activation, focus range approx. 0.7 - 5 m

Compatible memory cards (for firmware updates only)
Micro-SDHC cards with max. 32 GB

Power supply
2 x alkaline manganese batteries 1.5 V, type IEC LR03 (AAA/Micro), or lithium batteries 1.5 V, type IEC FR03 (AAA/Micro), or nickel/metal-hydride (NiMH) rechargeable batteries 1.2 V, type IEC HR03 (AAA/Micro)

Power save system
The device automatically switches to standby after 2 min and powers down after 60 min

Dimensions (W x H x D)
approx. 65 x 60 x 60 mm

Weight (without batteries)
approx. 73 g

Delivery package
Remote control, case, quick start guide

Technical changes and errors excepted.

LEICA PRODUCT SUPPORT

The Product Support Department at Leica AG offers support for technical questions relating to Leica products and the software supplied in writing, on the phone or by email. They are also the contact point for purchasing advice and to order instruction manuals.
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
35578 Wetzlar, Germany
Telephone: +49(0)6441-2080-111/-108
Fax: +49(0)6441-2080-490
info@leica-camera.com/software-support@leica-camera.com

LEICA CUSTOMER CARE

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

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

DAS WESENTLICHE