CALONOX VIEW
Instruction manual

FOREWORD

Dear Customer,

we wish you a great deal of enjoyment and every success with your new Leica product.

Please read this manual to familiarize yourself with the full scope of functions your product has to offer.

Please use this product only as described in this manual. Only then can safe and easy operation be guaranteed.

All the information you need about your product is available anytime at:

https://www.leica-calonox.com

Your Leica Camera AG

Please read the chapters "Safety Remarks" and "Important Information" before using the product for the first time. Knowledge of the content will prevent inadvertent damage to the product, possible injuries and other risks.

SCOPE OF DELIVERY

The standard scope of delivery* contains the following:

– Calonox View
– Cordura case
– Charging cable
– Carry strap
– Quick Start Guide
– Lens cleaning cloth
– Lens cap with safety cord
– Rubber eyecup for users with eye glasses
– Test certificate

REPLACEMENT PARTS / ACCESSORIES

Contact Leica Customer Care or your specialist Leica retailer for details on the latest replacement parts / accessory range:

https://en.leica-camera.com/Stores-Dealers/Leica-dealer-locator

*The actual scope of delivery may vary depending on model.

LEGAL INFORMATION

LEGAL INFORMATION ABOUT THIS MANUAL

COPYRIGHT

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All text, images and graphics are subject to copyright and other laws to protect intellectual property. They must not be copied, modified or used for any purpose including trade purposes.

TECHNICAL DATA

Product changes with regards to the product or services may have occurred after the editorial deadline. The manufacturer reserves the right to effect structural or shape changes, color deviations and changes to the scope of delivery or service, where these changes or deviations are reasonably acceptable for the customer, while taking into consideration the interests of Leica Camera AG. In that respect, Leica Camera AG reserves the right to changes and errors. The images in this manual may depict accessory, special features or other items that are not part of the standard scope of delivery or service. Some pages may contain model types and services, which are not offered in specific countries.

BRANDS AND LOGOS

The brand names and logos used in this documented are protected trademarks. These brands or logos must not be used without prior approval by Leica Camera AG.

LICENSE RIGHTS

Leica Camera AG intends to provide you with innovative and informative documentation. Due to the amount of creativity that has gone into its design, we ask for your understanding that Leica Camera AG must protect its intellectual property, including patents, trademarks and copyrights, and that possession of the documentation does not infer any licensing rights of the intellectual property of Leica Camera AG.

IMPORTANT NOTES REGARDING THE USE OF THERMAL IMAGING CAMERAS

LEGAL RESTRICTIONS ON USE

Outside of Germany
- The use of thermal imaging devices and associated technologies may be restricted in some countries or regions. You should therefore contact your travel agent or the embassy of your destination country for relevant information beforehand. Violations will be prosecuted by local authorities.

IMPORTANT NOTES REGARDING THE USE OF WLAN/BLUETOOTH®
(CONNECTING TO THE LEICA CALONOX APP)

Please see p. 30 for instructions how to connect to the Leica Calonox app.

- Appropriate measures must be taken to ensure security and protect against disruptions to the systems in place where devices or computer systems are in use that require more stringent security than WLAN devices.
- Leica Camera AG shall not accept 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 countries where this camera is sold. There may be a risk of breaching statutory wireless communication regulations when using the camera in other countries. Leica Camera AG shall not accept liability for such breaches.
- Please note that there is a risk of unauthorized third party interception of wirelessly communicated data. We highly recommend that you activate encryption in the wireless access point settings to ensure data safety.
- Avoid using the camera in areas where it can be exposed to magnetic fields, static electricity or other interferences, e.g. near a microwave oven. RF transmissions may otherwise not reach the camera.
- Using the camera near devices like microwave ovens or wireless phones that use the 2.4 GHz RF band may negatively affect the performance of both devices.
- Do not attempt to connect to wireless networks you are not authorized to use.
- The device will automatically search for wireless networks, once the WLAN function is enabled. A list, including networks you are not authorized to access, will be displayed (SSID: Network identifier for a WLAN network). Do not attempt to connect to such a network, as this could be construed as unauthorized access.
- We recommend disabling the WLAN function while on an aircraft.

REGULATORY INFORMATION

You will find the manufacturing date of your product on the stickers on the packaging. The date format is year/month/day.

CE MARK

The CE mark on our products documents compliance with the fundamental requirements of applicable EU guidelines.

English

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 2014/53/EU.

Customers can download a copy of the original DoC to our Radio Equipment products from our DoC server:

www.cert.leica-camera.com

Please contact The Leica Camera AG Product Support in case of any further questions: Am Leitz-Park 5, 35578 Wetzlar, Germany

Depending on product (see technical data)

Type	Frequency band (center frequency)	Maximum output (dBm E.I.R.P.)
WLAN	2412–2462/5180–5240 MHz/ 5260–5320/5500–5700 MHz	20
Bluetooth® Wireless Technology	2402–2480 MHz	20

DISPOSAL OF ELECTRICAL AND ELECTRONIC EQUIPMENT

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

This device contains electric and/or electronic components which must not be disposed of in general household waste. Instead, it should be disposed of at a recycling collection point provided by your local authority.

This service is free of charge. Any standard or rechargeable batteries used in this device must be removed and disposed of separately in accordance with local regulations.

Please contact your local authorities, waste disposal collection point or the retailer, from whom you purchased the device for more information on correct waste disposal.

SAFETY REMARKS

GENERAL INFORMATION

- Do not use your device in the immediate vicinity of devices with powerful magnetic, electrostatic or electromagnetic fields (e.g. induction ovens, microwave ovens, television sets or computer screens, video game consoles, cell phones, broadcasting equipment). Their electromagnetic fields can interfere with recordings.
- Image recording may be affected if you place the device on a television set or operate it in close proximity of a TV or near a cell phone.
- Strong magnetic fields, e.g. from speakers or large electric motors can damage the stored picture data or disrupt recording.
- Do not use the device in the immediate vicinity of radio transmitters or high-voltage power lines. Their electromagnetic fields may interfere with recordings.
- Do not attempt to remove parts of the housing (covers) yourself. Repairs must be done at authorized service centers only.
- The device must not come into contact with insect repellent sprays or other aggressive chemicals. Petroleum spirit, thinner and alcohol must not be used for cleaning. Some chemicals and liquids may damage the device housing or its surface coating.
- Keep the device out of the reach of small children.
- Do not use the device while walking. You might trip and fall.
- Do not attempt to disassemble or modify the device; exposing the internal electronics may cause damage, injury or electric shock.

EYEPIECE

- An eyepiece can have the effect of a magnifying glass when exposed to direct frontal sunlight. The device must therefore be protected against extended exposure to direct sunlight. Storing the device in the shade or ideally in its case will help prevent damage to the device interior.

SENSOR

- Cosmic radiation (e.g. during flights) may cause pixel defects.

CARRY STRAP

- Once you have attached the carry strap, please make sure that the clips are mounted correctly to prevent the device falling.
- The carry strap is usually made of very robust material. You should therefore keep it out of the reach of children. A carry strap is not a toy and poses a strangulation risk.
- The carry strap should only be used for their intended purpose. Any other use poses the risk of injury and may possibly result in damage to the carry strap and is therefore not permitted.
- Carry straps should also not be used for cameras/binoculars during sports activities that pose a risk of entanglement (e.g. when mountain climbing and similar outdoor activities).

IMPORTANT INFORMATION

- Do not attempt to take the device apart yourself. Repairs must only be carried out in authorized workshops.
- Do not touch the glass surfaces with your fingers, especially if you have previously applied hand cream, insect repellent, etc. These substances may contain chemicals that damage or destroy the coatings on the glass surfaces.
- Make a note of the serial number of your device, as this information will be extremely important in case of loss.

WARRANTY

In addition to your statutory warranty rights from your dealer, Leica Camera AG offers a 3-year warranty for this Leica product in accordance with the conditions started below. The Leica warranty does not impact on any statutory consumer rights in accordance with relevant national law or any consumer rights vis-a-vis the retailer arising from the purchase contract concluded between them.

WARRANTY CONDITIONS

By purchasing this Leica thermal imaging camera, you have acquired a product that is manufactured in compliance with special quality standards, and which was thoroughly tested at each individual production step by experienced specialists. Our three-year warranty for this product commences on the date of sale by an authorized retailer under the following conditions:

1. In case of a complaint due to a manufacturing fault, we will assume all material costs during the warranty period. We shall decide at our own discretion to repair the faulty product, to replace faulty parts or to replace the entire product with a faultless product of the same type. All other claims of any kind and on whatever legal basis shall not be accepted in connection with this warranty.
2. Wear parts like eyecups, leather details, armoring, carry straps and accessories are exempt from the warranty. The same applies for surface damage.
3. Any warranty claims become void if the defect in question is a result of improper handling – which also includes the use of third-party accessories – or if the product was manipulated by unauthorized persons or workshops or if the serial number of the product was rendered illegible.
4. Warranty claims can be submitted only in conjunction with the original proof of purchase – complete with the date of purchase, as well as the address and signature of an authorized retailer.
5. In case of a warranty claim, please send the Leica product, the original proof of purchase and a description of the fault to Leica Camera AG Customer Care or a Leica regional subsidiary.

Leica Calonox models come with splash water protection coating (IPX5).
The device was tested under controlled laboratory conditions and is classed as IPX5 in accordance with DIN EN 60529. Please note: the protection coating is not permanent and will diminish over time. The warranty does not cover liquid damage. Any attempt to open the device by an unauthorized retailer or service partner will result in the immediate expiration of the warranty.

PICK-UP SERVICE FOR REPAIR SUBMISSIONS
(Applies for EU only)

We will organize the shipping of your device to our Customer Care department if you should notice a problem with your device during the warranty period. Please contact our service hotline to make the necessary arrangements (+49 (0)6441 2080 189). Our pick-up service will collect your Leica product at the agreed time from your premises free of charge and transport it to our Customer Care location for evaluation.

Contact: en.leica-camera.com/Contact

TABLE OF CONTENT

Definition of the various categories of information found in this manual
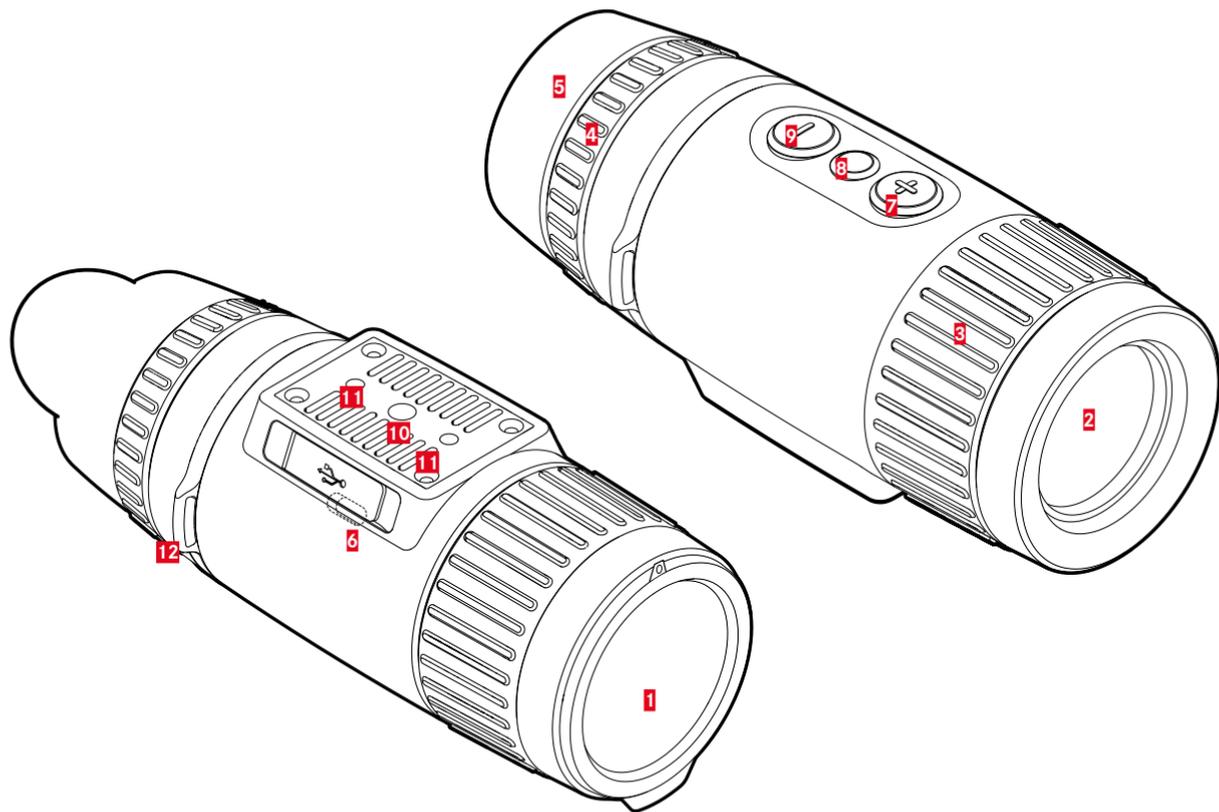
Note
– Additional information

Important
– Non-compliance may result in damage to the device and accessories

Attention
– Non-compliance may result in personal injury

PART DESIGNATIONS

1 **Lens cap**
 – Lens protection
 – While carrying out complete calibration

2 **Front lens**
 – Germanium lens
 – Heat signatures is forwarded to the sensor

3 **Focus ring**
 – Focusing to the relevant distance

4 **Diopter setting wheel**
 – Adaptation of the diopter setting of the eyepiece to various visual acuities

5 **Eyecup**
 – Prevents lateral light incidence

6 **USB interface (USB-C)**
 – Picture transmission (PAL)
 – external power supply

7 **[+] button***
 – On/Off
 – Standby mode
 – Menu navigation

8 **Menu selection button***
 – Accessing the menus
 – Storing of settings

9 **[–] button***
 – Menu navigation
 – Recording Picture/Video

10 **Tripod thread**
 – A 1⁄4 DIN 4503 (1⁄4")
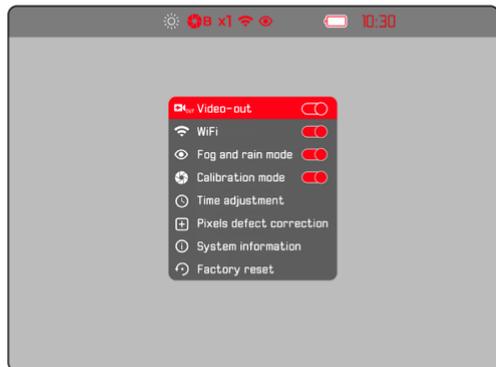
11 **Tripod thread**
 – M5 standard thread

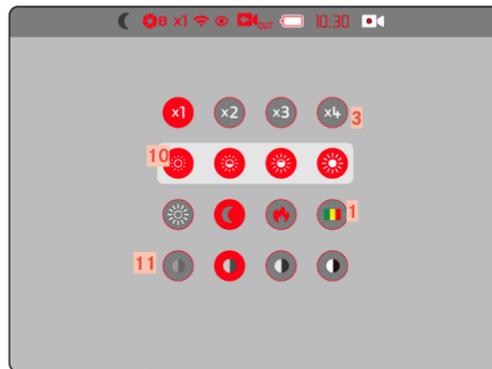**12** **Strap lugs**

DISPLAYS

OBSERVATION MODE
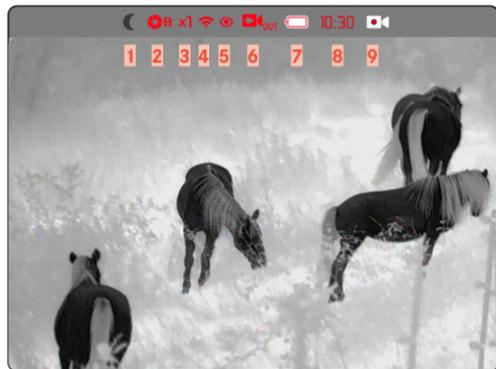
ICONS MENU

LIST MENU

1 **Color mode**

- White Hot (warm appears white)

- Black Hot (warm appears black)

- Red Hot (warm appears red)

- Rainbow (multicolored)

2 **Calibration mode**

A (Automatic)/B (Background)/M (Manual)

3 **Digital Zoom**

x1 - x2.5 magnification

x2 - x5 magnification

x3 - x7.5 magnification

x4 - x10 magnification

4 **Wi-Fi**

5 **"Fog and rain" mode**

6 **Video-out**

7 **Battery capacity**

The battery charge status is displayed in the header line.

8 **Time**
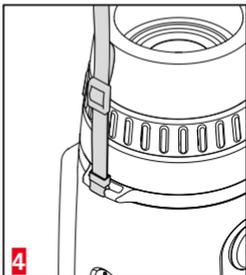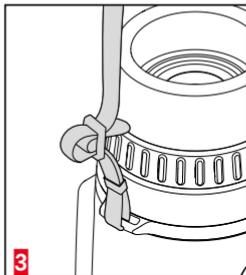
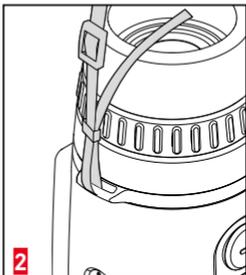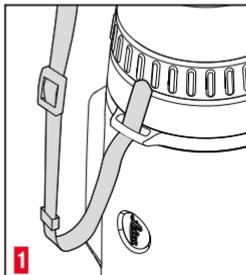**9** **Active video recording**

10 **Brightness**

4 selectable increments
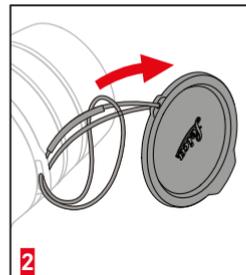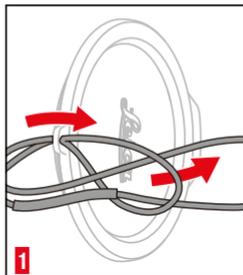
11 **Contrast**

4 selectable increments

PREPARATION

ATTACHING THE CARRY STRAP
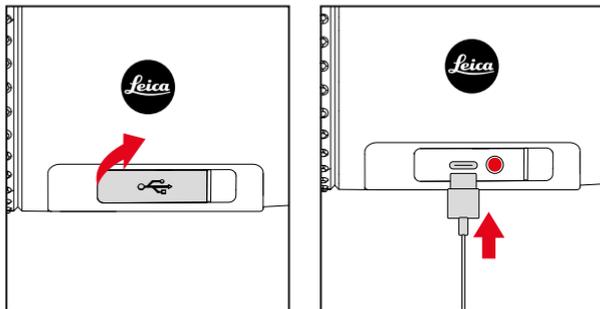

ATTACHING THE SAFETY CORD

Important
• Once you have attached the carry strap, please make sure that the clips are mounted correctly to prevent the device falling.

CHARGING THE BATTERY

A lithium-ion rechargeable battery supplies the device with power. The battery charge status is displayed in the header line.

▶ Grab and pull the left end of the cover cap

▶ Insert the USB cable (USB-C)

▶ Connect the other end of the USB cable to a suitable power adapter (min. 1.5 A / 5 V input for optimal charging time)

  • The status LED indicates a correct charging process. The status LED will switch from red to green, once the battery is fully charged.

  • The icon ⚡ will be displayed in the header line next to the battery icon while the battery is charging.

DIOPTER SETTINGS

A diopter compensation function for up to ±5 diopter is available to allow wearers of glasses the use of this product without eye glasses.
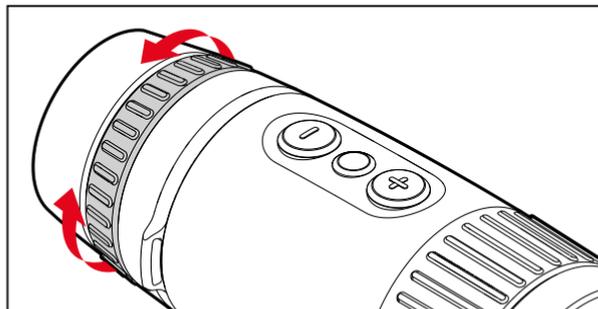
▶ Close the lens cap

▶ Look through the eyepiece

▶ Turn the diopter setting wheel until the icons in the header appear in sharp focus

OPERATION

SWITCHING THE DEVICE ON/OFF

SWITCHING ON

▶ <u>Press and hold</u> the **[+]** button, until the 'Leica' logo appears on screen
  • This switches on the device.

Note
• The device will not automatically power down.

SWITCHING OFF

▶ <u>Press and hold</u> the **[+]** button
  • A countdown appears on screen, which counts down the final three seconds.
▶ Press and hold the **[+]** button until the countdown is complete
  • The device switches off.

Note
• The device will not automatically power down.

POWER SAVE MODE (STANDBY MODE)

▶ <u>Press and hold</u> the **[+]** button
  • A countdown appears on screen, which counts down the final three seconds.
▶ Release the **[+]** button before the countdown is complete
  • The device switches to standby mode. The display is switched off.

Note
• In standby mode, the device can be activated quickly at any time by pressing the **[+]** button.

CALIBRATION

Calibrations should be done regularly for optimal display performance. There are two types of calibration (quick calibration and full calibration). The calibration to choose depends on the set operating mode.

Three operating modes are available:

	Function	Press the [+] button
A	Automatic recalibration The device recalibrates automatically during operation.	Quick calibration
M	Manual calibration Quick calibration can be triggered manually whenever necessary. The settings remain until the next calibration is started.	Quick calibration
B	The device is fully calibrated each time.	Full calibration

Note

• The lens cap must be mounted for full calibration.

SELECTING A MODE

▶ Press and hold the menu selection button
  • The list menu appears.

▶ Press the [+] and [−] buttons to navigate to the menu item Calibration mode

▶ Press the menu selection button repeatedly, until the desired setting is displayed

▶ Press and hold the menu selection button
  • The setting will now be saved. The device returns to observation mode.

CALIBRATING

FULL CALIBRATION

In this calibration mode, the device is fully recalibrated. That makes it much more effective and suitable for e.g. the removal of annoying afterimages. These effects can be more or less severe, depending on circumstances. This type of calibration is the most exact.

▶ Close the lens cap

▶ Press the **[+]** button <u>briefly</u>
  • The calibration process is complete when the message `Close the objective lens`

QUICK CALIBRATION

This type of calibration is done significantly faster and doesn't require a closing of the lens cap. Afterimages may remain.

▶ Press the **[+]** button <u>briefly</u>

FOCUSING

Use the focus ring to sharpen the image.

▶ Select an image section

▶ Turn the focus ring to sharpen the desired subject elements
  • The entire depth area is run through with a quarter turn (90°) of the focus ring.

CREATING RECORDINGS

Calonox View permits the creation of picture and video recordings.

RECORDING PICTURES

▶ Press the **[–]** button briefly
  • The camera icon briefly appears on the LCD panel.
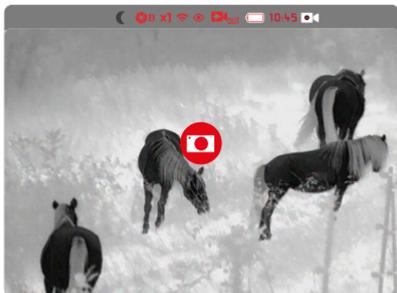
RECORDING VIDEOS

Starting the video recording

▶ Press and hold the **[–]** button
  • The video recording begins.
  • The video recording icon appears in the header.

Ending the video recording

▶ Press and hold the **[–]** button
  • The video recording stops.
  • The video recording icon disappears.

REVIEWING RECORDINGS

IN THE LEICA CALONOX APP

The recordings can be reviewed and managed in the Leica Calonox app immediately. See p. 22 for app installation and device connection.

ON A COMPUTER

The recordings can only be viewed or managed on a laptop or other computer after they have been transferred to that device.
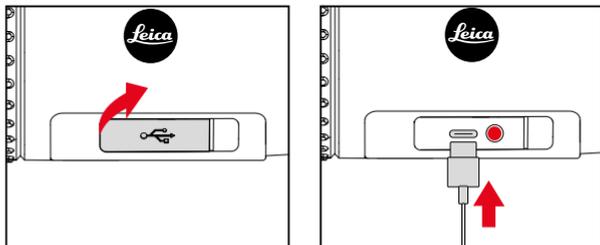
▶ Grab and pull the left end of the cover cap

▶ Insert the USB cable (USB-C)

▶ Connect the other end of the USB cable to a computer
  • The device will appear in the file tree of the computer after a few seconds as an external drive "LEICA".

BUTTON FUNCTION OVERVIEW

		Observation mode	**Menu**
[+] button	Press the <u>briefly</u>	Wakeup/Calibration	To the right/up
	<u>Press and hold</u>	On/Off/Standby	–
Menu selection button	Press the <u>briefly</u>	Access icons menu	Setting in the submenu / Save
	<u>Press and hold</u>	Access list menu	Save/Exit menu
[−] button	Press the <u>briefly</u>	Photo	To the left/down
	<u>Press and hold</u>	Video	–

ICONS MENU

MENU CONTROL

Accessing the icons menu

▶ Press the menu selection button <u>briefly</u>
  • The icons menu appears.
  • The device will automatically return to observation mode after ca. 4 s of inactivity.

Accessing a menu item

▶ Press the **[+]** and **[−]** buttons to navigate to the desired menu item
▶ Press the menu selection button <u>briefly</u>
  • The menu option can now be set.

Changing a setting

▶ Press the **[+]** and **[−]** buttons to navigate to the desired setting
▶ Press the menu selection button <u>briefly</u>
  • The setting will now be saved. The display returns to the icons menu.

Exiting the icons menu

▶ <u>Press and hold</u> the menu selection button
  • The device returns to observation mode.
or
▶ Wait approx. 4 s
  • The device will automatically return to observation mode after ca. 4 s of inactivity.

ENLARGEMENT ⓧ① ⓧ② ⓧ③ ⓧ④

Calonox View offers basic magnification of 2.5x as standard. Additional digital zoom levels can be additionally selected. A total of four digital zoom levels are available.
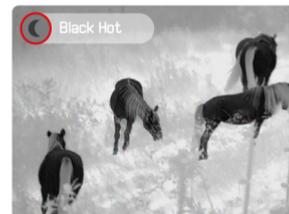
Direct access in observation mode

▶ Press the **[+]** and **[−]** buttons briefly
  • The menu item "Magnification" will appear.

BRIGHTNESS ⦾ ⦾ ⦾ ⦾

Brightness can be set to four different levels.

COLOR MODE ⦿ ◑ ⦿ ⦿

There are four color modes to choose from.

White Hot

Black Hot

Red Hot

Rainbow

CONTRAST ◑ ◑ ◑ ◑

Image contrast can be set to four different levels.

LIST MENU

The list menu consists of one menu page with a total of 8 settings.

MENU CONTROL

Accessing the list menu

▶ Press and hold the menu selection button
  • The list menu appears.
  • The device will automatically return to observation mode after ca. 5 s of inactivity.

Exiting the list menu

▶ Press and hold the menu selection button
  • The device returns to observation mode.

or

▶ Wait approx. 5 s
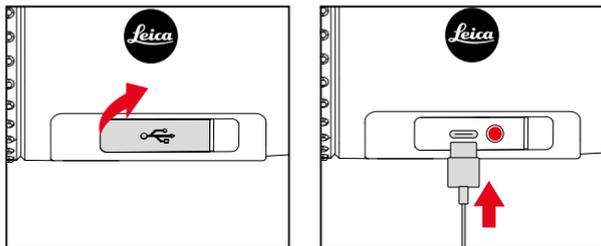 • The device will automatically return to observation mode after ca. 5 s of inactivity.
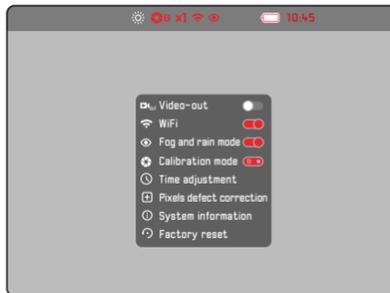
Activating/deactivating an option

▶ Press the **[+]** and **[−]** buttons to navigate to the desired menu item

▶ Press the menu selection button briefly

VIDEO OUTPUT - ◼︎◀︎OUT

Calonox allows an output of the screen image to an external screen.

▶ Grab and pull the left end of the cover cap

▶ Insert the USB cable (USB-C)

▶ Connect the S-Video plug on the other end of the USB cable to an external screen

▶ Activate Video-out

WI-FI - 📶

A connection to the Leica Calonox app can be established if the Wi-Fi function is activated (see p. 30).

"FOG AND RAIN" MODE - ◉

In this mode, image contrast can be improved (useful in cloudy, rainy, foggy and other rough weather conditions).

Note

• Power consumption increases in "Fog and rain" mode, which will reduce battery life accordingly.

TIME SETTING - 🕐

You can choose to have a 12-hour or 24-hour time format displayed in the header line.

Changing a setting

▶ Press the **[+]** and **[−]** buttons to navigate to the desired setting

▶ Press the menu selection button briefly

▶ Use the **[+]** and **[−]** button to toggle between the 12-hour and the 24-hour time format.

▶ Press the menu selection button briefly

▶ Use the **[+]** and **[−]** button to set the time

▶ Press and hold the menu selection button

• The settings will now be saved.

CORRECTING PIXEL ERRORS - ⊕

Pixel errors may occur on the screen from time to time. These can be selected and corrected using a special mode.

Accessing the pixel correction mode

▶ Select Pixels defect correction in the list menu

Selecting a faulty pixel

▶ Place the cross-hair pointer directly over the faulty pixel

Controlling the cross-hair pointer	
Select an active axis / switch between X and Y axis	Press the menu selection button <u>briefly</u>
To the right/up	Press the **[+]** button <u>briefly</u>
To the left/down	Press the **[−]** button <u>briefly</u>
To the right/up (quick)	<u>Press and hold</u> the **[+]** button
To the left/down (quick)	<u>Press and hold</u> the **[−]** button

Marking defective pixels

▶ <u>Press and hold</u> the **[+]** and **[−]** button simultaneously
  • A status bar with the number of marked pixels appears in the status bar for confirmation.

Storing marked pixels

▶ <u>Press and hold</u> the menu selection button
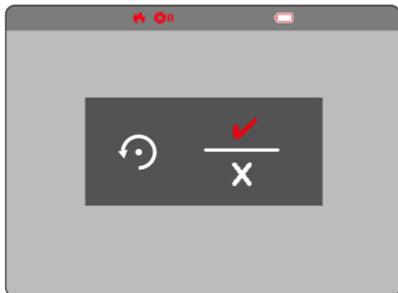 • A menu to save (✔) or to exit the mode (✖) will appear.

SHOW SYSTEM INFORMATION - ⓘ

Various types of device information are available under the menu item System information.

RESET TO FACTORY SETTINGS - ⟲

You can delete all manual settings and reset them to their factory settings.

▶ Select Factory reset in the list menu

Confirming the procedure

▶ Press the menu selection button (◼)
  • The device will be reset.

Canceling the procedure

▶ Press the [−] button (✕)
  • The list menu appears.

PROCEDURE IN CASE OF MALFUNCTION

Should the device no longer function as described, it can be switched off using a key combination. All functions should return to normal after the device is switched on again.

▶ Press and hold the **[+]** and **[−]** buttons simultaneously for about 30–60 s
  • The device switches off.

▶ Switch the device on again (see p. 18)

LEICA CALONOX APP

The device can be remotely controlled via smartphone or tablet.

That will require the installation of the "Leica Calonox View" app on the mobile device. A list of available functions and instructions for their use can be found in the app.

▶ The app is available from Apple App Store™/Google Play Store™ for download and installation

CONNECTION

ESTABLISHING A CONNECTION

ON THE DEVICE

▶ Press and hold the menu selection button
  • The list menu appears.

▶ Select Wi-Fi

▶ Press the menu selection button briefly
  • Wi-Fi is activated (appears).

Note

• The Wi-Fi function is deactivated automatically if no connection is established within one minute.

ON THE MOBILE DEVICE

▶ Activate Wi-Fi
  • A list of available devices appears.

▶ Select the desired device

▶ Enter the connection code (**12345678**)

▶ Launch the Leica Calonox app

DISCONNECTION

We recommend disabling the Wi-Fi function, once a connection to the mobile device is no longer needed.

▶ Press and hold the menu selection button
  • The list menu appears.

▶ Select Wi-Fi

▶ Press the menu selection button briefly
  • Wi-Fi is deactivated and the connection is dropped.

Note

• Power consumption increases while the device is connected to the app, which will reduce battery life accordingly.

CARE/CLEANING

- Your Leica product requires no special care.
- Coarse dirt particles like sand can be removed with a soft brush or simply blown off.
- Fingerprints, etc. on front lenses and eyepiece lenses can be pre-cleaned with a damp cloth and then wiped dry with a clean leather or lint-free cloth.
- The device should be stored in a well-ventilated, dry and cool place to prevent fungal growth (particularly important in humid climates).
- Do not use alcohol or chemical cleaning solutions on the optics or housing.
- Do not use excessive force when cleaning a severely soiled lens surface. The coating is abrasion resistant, but not impervious to sand or salt crystals.
- The housing should be cleaned using a damp leather cloth only. Using a dry cloth may cause friction, which may result in a static discharge.
- Always rinse off any traces of salt water! Dried salt crystals could damage the surfaces.

TECHNICAL DATA

Designation	Leica Calonox View
Device type	Thermal imaging device
Type No.	1790
Order No.	50502
Scope of delivery	Calonox View, cordura case, charging cable, carry strap, quick start guide, lens cleaning cloth, additional rubber eyecup, lens cover, safety cord, certificate
Sensor type	VOx
Sensor size	640 x 512 pixels
Pixel size	12 µm
Screen type	LCOS
Screen diagonal	0.4"
Screen resolution	1280 x 960 pixels
Image repetition frequency	50 Hz
Lens focal length	42 mm
Optical basic magnification	2.5x
Digital Zoom	x1 (2.5x magnification) / x2 (5x magnification) / x3 (7.5x magnification) / x4 (10x magnification)
Field of view	10.5 x 8.4° (18.3 m x 14.6 m / 100 m)
Diopter compensation	±5 dpt
Range/Resolution (calculated for image subject 1.7 m x 0.5 m)	
Detection range / Resolution	3000 m / 2 pixels
Recognition range / Resolution	1000 m / 6 pixels
Identification range / Resolution	500 m / 12 pixels
Adjustment reticle correction	–

Video output	PAL
Video recording	yes
Video/Picture resolution	768 x 576 pixels
Cable socket	USB-C
Wireless connection	Wi-Fi (2.4 GHz)
Internal memory	16 GB
Protection type	IPX5
Operating temperature	–10°C to +50°C
Operating temperature (charge battery)	+10 to +30°C
Battery life	approx. 4 - 5 h
Accessory thread	–
Tripod thread	A ¼ DIN 4503 (¼"), M5 standard thread
Material	Composite with rubber armoring
Dimensions (WxH)	170 x 65 mm
Weight (with battery)	685 g

Subject to changes in design, production, and scope of delivery.

LEICA CUSTOMER CARE

Please contact Leica Camera AG Customer Care for the maintenance of your Leica equipment and for help and advice regarding Leica products and how to order them. You can also contact the Customer Care department or the repair service provided by your regional Leica subsidiary for repairs or warranty claims.

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