Leica ICC50 W
User Manual

LEICA

MICROSYSTEMS

Contents

General Notes

General Notes

The Leica ICC50 W camera includes an interactive CD-ROM with all relevant user manuals. Keep it in a safe place, and readily accessible to the user. User manuals and updates are also available for you to download and print from our web site at www.leica-microsystems.com.

Also, look for any available Apps for mobile devices in your iOS or Android App store.

Before installing, operating or using the instruments, read the user manuals listed above. In particular, please observe all safety instructions.

To maintain the unit in its original condition and to ensure safe operation, the user must follow the instructions and warnings contained in these user manuals.

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Safety Instructions

Safety concept

Before using your Leica ICC50 W camera for the first time, please read the "Safety concept" brochure included with your instrument. It contains additional information about handling and care.

Description

The Leica ICC50 W fulfills the highest requirements for observation and documentation.

Designated use

See "Safety concept" booklet

Non-intended use

See "Safety concept" booklet

⚠ The devices and accessories described in this operating manual have been tested for safety and potential hazards. The responsible Leica affiliate must be consulted whenever the device is altered, modified or used in conjunction with non-Leica components that are outside of the scope of this manual.

Unauthorized alterations to the instrument or noncompliant use shall void all rights to any warranty claims!

Location of use

See "Safety concept" booklet

⚠ Set up the electrical components at least 10 cm from walls and combustible objects.

Avoid large temperature fluctuations, direct sunlight and vibrations. These conditions can distort measurements and micrographic images.

Requirements for the owner/operator

See "Safety concept" booklet

Ensure that:
The Leica ICC50 W camera is operated, maintained and repaired by authorized and trained personnel only.

All operators have read, understood and observe this user manual, and particularly the safety instructions.

Safety Instructions (Continued)

Transport

Use the original packaging for shipping or transporting the Leica ICC50 W camera.

In order to prevent damage from vibrations, disassemble all moving parts that (according to the user manual) can be assembled and disassembled by the customer and pack them separately.

Installation in third-party products

See "Safety concept" booklet

Disposal

See "Safety concept" booklet

Legal regulations

See "Safety concept" booklet

EC Declaration of Conformity

See "Safety concept" booklet

Health risks

Workplaces equipped with microscopes facilitate and improve the viewing task, but they also impose high demands on the eyes and holding muscles of the user. Depending on the duration of uninterrupted work, asthenopia and musculoskeletal problems may occur. For this reason, appropriate measures for reduction of the workload must be taken:

- Optimal arrangement of workplace, work assignments and work flow (changing tasks frequently).

- Thorough training of the personnel, giving consideration to ergonomic and organizational aspects.

Safety Instructions (Continued)

Instrument safety and EMC

Our device has been designed, produced and tested in compliance with

- IEC EN 61010-1: Electrical equipment for measurement, control and laboratory use – Safety – Part one: general requirements

- EN 60950-1: Information technology equipment – Safety – Part one: general requirements

- EN 300328: Electromagnetic compatibility and Radio spectrum Matters (ERM); Wide-band transmission systems; Data transmission equipment operating in the 2,4 GHz ISM band and using wide band modulation techniques; Harmonized EN covering essential requirements under article 3.2 of the R&TTE directive.

- Radio interference suppression in compliance with EN 55011 class ??

- Noise immunity in compliance with DIN EN 61326-1.

The device meets the requirements of EU directives

- 2006/95/EG   Low voltage directive
- 2014/30/EU   EMC directive
- 2011/95/EU   RoHS directive

And carries the CE mark.

The device must be disposed of in accordance with 2012/19/EU WEEE directive.

Intended for indoor use only in all EU member states, EFTA states and Switzerland.

FCC Requirements for Operation in the United States

FCC radio frequency interference warnings and instructions

This equipment has been tested and found to comply with the limits for a **Class B digital device**, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

● Reorient or relocate the receiving antenna.

● Increase the separation between the equipment and receiver.

● Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

● Consult the dealer or an experienced radio/TV technician for help.

FCC information to user

This product does not contain any user serviceable components and is to be used with approved antennas only.

Any product changes or modifications will invalidate all applicable regulatory certifications and approvals.

FCC guidelines for human exposure

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance of 20 cm between the radiator and your body. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

FCC caution

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

● This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

● This device and its antenna(s) must not be co-located or operation in conjunction with any other antenna or transmitter.

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Symbols Used

Read and understand user manual before using this device.

Warning of a danger

This symbol indicates especially important information that must be read and complied with. Failure to comply can cause the following:

- Hazards to personnel
- Functional disturbances or damaged instruments

Warning of hazardous electrical voltage

This symbol indicates especially important information that, if not observed, can cause the following:

- Hazards to personnel
- Functional disturbances or damaged instruments

Danger due to hot surface

This symbol warns against touching hot surfaces, e.g. those of light bulbs.

Important information

This symbol indicates additional information or explanations that intend to provide clarity.

Service

Care, Maintenance, Contact Persons

General

We hope you enjoy using your high-performance camera. Leica microscope cameras are renowned for their robustness and long service life. Observing the following care and cleaning tips will ensure that even after years and decades, your Leica camera will continue to work as well as it did on the very first day.

Warranty benefits

The guarantee covers all faults in materials and manufacture. It does not, however, cover damage resulting from careless or improper handling.

Care

Keeping all optical components clean is important for maintaining good optical performance.

Cleaning

- Do not use any unsuitable cleaning agents, chemicals or techniques for cleaning.

- Never use chemicals to clean colored surfaces or accessories with rubberized parts. This could damage the surfaces, and specimens could be contaminated by abraded particles.

- Optical surfaces should be cleaned using a lint-free cloth, lens cloth or cotton swab moistened with a commercially available glass cleaner. Do not use alcohol.

- If any optical surface becomes badly coated with dust or dirt brush it off with a camel hair brush before attempting to wipe it clean.

Cleaning polymer components

Some components are made of polymer or are polymer-coated. They are, therefore, pleasant and convenient to handle. The use of unsuitable cleaning agents and techniques can damage polymers.

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Care, Maintenance, Contact Persons (Continued)

Protection from dirt

Dust and dirt will affect the quality of your results.

Put the available dust cover over the microscope camera when it will not be used for a long time.

Protect your microscope camera from moisture, fumes and acids and from alkaline, caustic and corrosive materials and keep chemicals away from the instruments.

Protect your microscope camera from oil and grease.

Do not grease guide surfaces or mechanical parts.

Repair, service work

See "Safety concept" booklet

Repairs may only be carried out by Leica Microsystems-trained service technicians.

Only original Leica Microsystems spare parts may be used.

Before opening the instruments, switch off the power and unplug the power cable.

Touching the live circuit can cause injury.

Plugs, optical systems and mechanical parts must not be disassembled or replaced, unless doing so is specifically permitted and described in this manual.

Electrical considerations

Risk of electric shock. Removing the covers of the Leica ICC50 W camera exposes hazardous voltages, which if contacted, could cause injury or death. Please contact an authorized Leica Microsystems dealer for technical service.

Contact address

If your instrument no longer works perfectly, contact your Leica representative. You can find information on worldwide Leica representatives on the Leica website: www.leica-microsystems.com.

The Leica ICC50 W

Introduction

Thank you for purchasing the Leica ICC50 W by Leica Microsystems. The special design of the Leica ICC50 W makes it a universal, highly versatile tool for viewing microscopic specimens and capturing still images or video.

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The Basics

ℹ️ Your Leica HD camera has many possibilities for various applications and conditions of use. Below are some basic concepts to help you get the most performance for your application.

Power Leica ICC50 W – 5 V/1.5 A

Power can be provided to the camera in the following ways:

- USB power connector on the microscope stand
- External USB power supply
- USB connectors PC

Modes of use

1. SD mode

- *capture onto SD card*
- *use remote control*

2. WiFi mode

- *Wireless connection to wireless device (tablet, phone, PC)*

3. USB mode

- *Cabled connection to PC*

4. Ethernet mode

- *Cabled connection to external network*

5. Capture button

- *Captures image onto the SD card*

5   2   1   4   3
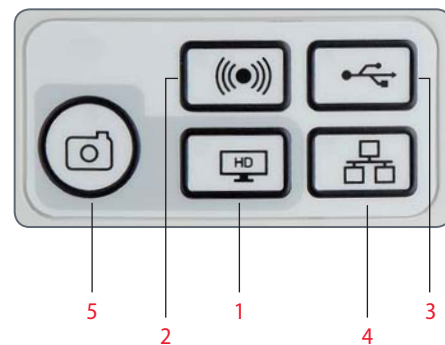
ℹ️ Note direct connection to an HD display is possible in all modes. Aspect ratio is 16:9 except in USB mode where the aspect ratio is 4:3.

Leica ICC50 W: Overview

1. LED status indicator

● Blinking red means starting up

● Green means ready

2. Capture button for SD card capture

3. Mode selection panel

4. SD card slot

5. Power on/off button

6. Service button

Leica ICC50 W: Overview (Continued)

1. *Ethernet socket for connecting an ethernet cable (cable not provided)*

2. *HDMI for connecting the provided HDMI cable*

3. *USB for connecting the provided USB cable*

Front
Infrared window: Receives the signal from the optional remote control.

Unpacking

ℹ️ Please do not discard any of the packing materials. They should be used for safely storing and transporting the instrument should the need arise.

The contents include the camera module, CD with imaging software, HDMI cable, and USB cable.

If you ordered the Optional USB power supply you have also received a power supply.

If you ordered the handheld remote, you received the remote with batteries.

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Get Ready!

Preparation for Use

Tools used

- Allen key (provided with microscope)

⚡ Do not insert anything except the SD memory card into the card slot – danger of short circuit and electric shock!

ℹ The Leica ICC50 W camera module fits between the microscope stand and the microscope's viewing tube.

Preparation for use

1. If the microscope's viewing tube is in place, remove it.

Attach the Leica ICC50 W to the microscope stand:

2. Slightly unscrew the set screw (located on top of the stand) with the allen key tool provided with the microscope.

3. Insert the dovetail (see the underside of the Leica ICC50 W) into the stand support.

4. Tighten the set screw firmly without forcing it.

Preparation for Use (Continued)

5. Attach the microscope viewing tube onto the Leica ICC50 W using the set screw, which is located on the left side of the Leica ICC50 W camera module.

Get Set!

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Connection

Connect the camera to a power source

Note the Leica ICC50 W requires 5 V/1.5 A for power, therefore, a proper power supply must be used.

Connect to a power source by one of the following methods:

1. Via provided USB cable to the USB connector on back of the microscope stand.

2. Via provided USB cable to external USB power supply.
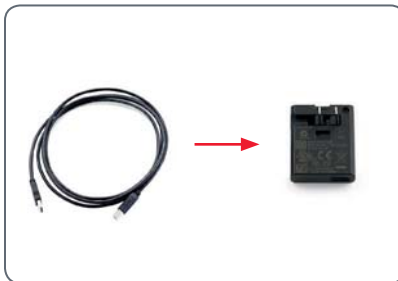
3. Via provided USB cable to USB connector of a PC. Camera should be in USB mode.

USB Mode – Capturing and Adjusting Images Using a Computer

🛈 10× eyepieces have a fixed circular field of view of 18 mm or more diameter. The Leica ICC50 W's field of view, however, is rectangular with a diagonal of 16.4 mm to ensure an even field on the digital image. As a result, the image field of the camera is smaller than the object field seen through the eyepieces.

Installing and connecting
1. Insert the provided CD into your computer, and follow the instructions to load the software.
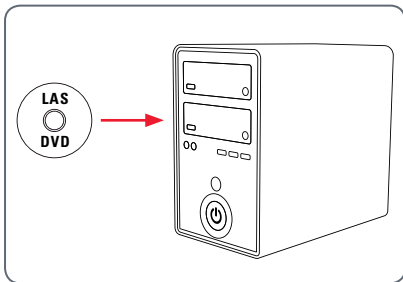
2. Insert the provided USB cable into the camera's USB port, and attach the other end of the cable to a USB 2.0 port of your computer.

3. Press the red power button on the camera.

4. The status light will blink red. Wait until the status light is green and one of the mode button's is also green. This may take approximately 30 seconds.

USB Mode – Capturing and Adjusting Images Using a Computer (Continued)

5. If a mode button other than USB mode is lit green, then press the USB mode button and wait until both the status LED and the USB mode button is green.

6. You are ready to launch the Leica software. Follow the software instructions to adjust and capture an image.

7. While in USB mode, you can connect the provided HDMI cable from the camera to an HD monitor or HD projector to share the image.

ℹ️ Note the image aspect ratio while in USB mode is 4:3. To avoid distortion if your projector or monitor is set to a 16:9 aspect ratio, you will need to adjust the aspect ratio of the projector or monitor to 4:3 using the controls of the projector or monitor.

ℹ️ Note the image resolution on the HD projector or monitor is limited to the live image resolution setting in the software.

4:3 aspect ratio

4:3 aspect ratio image on a screen set to an aspect ratio of 16:9

SD Mode – Capturing Images Without a Computer or Without a Wireless Device

ℹ️ In order to use this mode, you must have an SD card (not provided) with free memory on it. If the SD memory card is full, the capture button LED will not light green and you will not be able to capture any more images.

Attaching the power cable

1. Be sure the camera is connected to a power source – see power source section on page 23.

2. Press the red power button.

3. The status light will blink red. Wait until the status light is green and one of the mode button's is also green. This may take approximately 30 seconds.

4. If a mode button other than SD mode is lit green, then press the SD mode button and wait until both the status LED and the SD mode button is green.

SD Mode – Capturing Images Without a Computer or Without a Wireless Device (Continued)

5. Insert the SD memory card into the slot on the side of the Leica ICC50 W until the card clicks into place.

The capture button LED will turn green. The Leica ICC50 W is now ready to capture images onto the SD memory card.

Capturing an image

⚠ It is critical to properly set the microscope eyepieces' diopters to ensure that the images on the SD memory card are in focus when the image is in focus through the microscope's eyepieces. Refer to the microscope's user manual for proper diopter setting. Focus the microscope at high magnification, then change to the magnification at which you wish to capture the image. Do not refocus the microscope. You can also use the HDMI output and an HD display (not provided) as a focusing aid.

6. To capture an image onto the SD memory card, lightly press the capture button, located on the side of the Leica ICC50 W camera.

● You will hear a beep to acknowledge the button was pressed.

● The status LED flashes red while the image is being captured.

● You will hear another beep when the Leica ICC50 W has completed capturing the image and the status LED will return to steady green.

The image is now saved on the SD card. Images which are on the SD card can be viewed using the optional remote control. See "Camera Remote Control" on page 31.

7. While in SD mode, you can connect the provided HDMI cable from the camera to an HD monitor or HD projector to share the image.
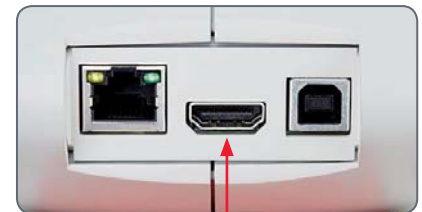
Adjusting Settings While in SD Mode

Setting a new white balance

ℹ️ Make sure that there is no sample in the beam path and that a standard illumination is available when you reset the camera.

Press and hold the capture button for 5 seconds. Wait for the beep. A new white balance is set.

Return to factory settings
Press and hold the service button for 5 seconds. Wait for the beep. The camera will now reset to factory settings.

ℹ️ It is recommended to set a new white balance each time you change the type or color temperature of the illumination. This is especially needed when you work with halogen light which can be turned from low intensity yellow to a high intensity blue light. The new white balance setting will generate a neutral background for both illuminations.

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WiFi Mode – Capturing and Adjusting Images Using a Wireless Device

1. Be sure the camera is connected to a power source – see power source section on page 23.

2. Press the red power button.

3. The status light will blink red. Wait until the status light is green and one of the mode button's is also green. This may take approximately 30 seconds.

4. If a mode button other than WiFi mode is lit green, then press the WiFi button and wait until both the status LED and the WiFi mode button is green.

5. Follow the directions of your WiFi viewing device to connect to the internal WiFi network of the camera.

6. Open the appropriate app on your mobile device or appropriate software on your wireless enabled PC for viewing, capturing, and adjusting the camera image.

Ethernet Mode – Capturing and Adjusting Images Using a Network

1. Connect one end of an ethernet cable (not provided) to the camera and the other end of the cable to the ethernet connection in your facility.
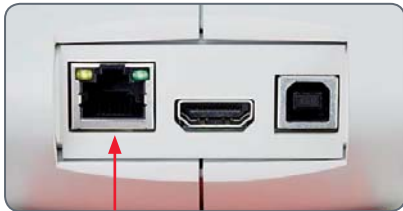
2. Be sure the camera is connected to a power source – see power source section on .

3. Press the red power button.

4. The status light will blink red. Wait until the status light is green and one of the mode button's is also green. This may take approximately 30 seconds.

5. If a mode button other than ethernet mode is lit green, then press the ethernet button and wait until both the status LED and the ethernet LED mode button is green.

6. Follow the directions of your network compatible device to connect to your facilities network and select the camera.

7. Open the appropriate app on your mobile device or appropriate software on your wireless enabled PC for viewing, capturing, and adjusting the camera image.

The Camera Remote Control (Optional)

⚠️ The remote control is designed to work only when the camera is in SD mode and when the camera is used in combination with an HD display.

The only function which works in any mode is the "Info" function which shows details about the camera.

Optional Remote Control

⚠ The remote control can only work in SD mode except for the "i" button which will display information about the camera on an HD display. The remote must be pointed at the IR receiver of the camera without obstructions.

1. Start/stop video recording
2. Save still image to SD card
3. Stop/continue live image, pause/play movie clip
4. View files on SD card
5. Move to previous image on SD card
6. Move to next image on SD card
7. Brightness adjustment up or down
8. Pairing button
9. Show/hide information box
10. White balance set button
11. Call up the camera menu
12. Arrow keys for navigation
13. OK to confirm

Viewing Images and Movies With the Optional Remote Control

If you have purchased the optional remote, the Leica HD camera shows images and movie clips directly on an HD monitor.

1. Thumbnail view [icon] (first press)

● up/down/left/right ▶ select thumbnail

● [OK] Show image in full screen or playback movie clip

● next image [icon] / previous [icon] image

● [icon] ▶ Play movie clip

● left /right ▶ fast forward / rewind

2. To return to live view press [icon].
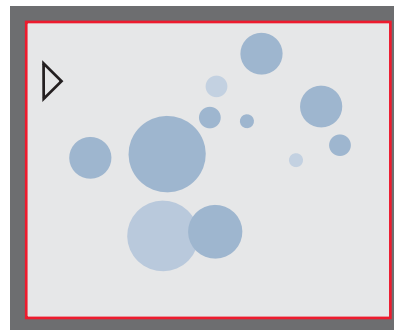
Playback / fullscreen view
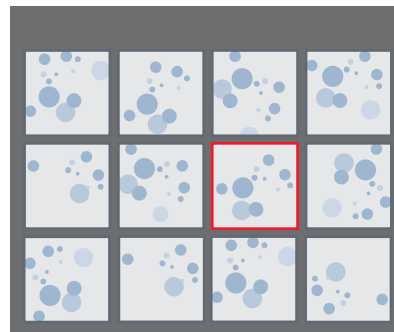
Thumbnail view

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Calling up the Camera Menu

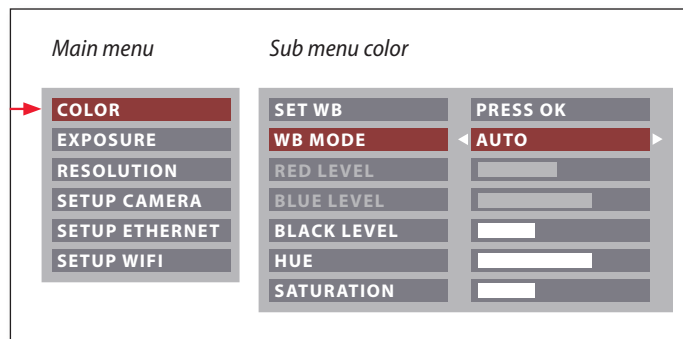ℹ️ The remote control can only work when the camera is in SD mode.

Opening and closing the camera menu

1. Point the remote control towards the camera.

2. Press the ☰ key on the remote control to show the camera menus on the monitor.

3. Press the ▲ ▼ ◄ and ► buttons to select a menu item.

4. Press the (OK) button to confirm a menu item.

5. Press the ☰ button again to hide the camera menus.

COLOR (Automatic White Balance)

| Main menu	Sub menu color	
COLOR	SET WB	PRESS OK
EXPOSURE	**WB MODE**	◄ **AUTO** ►
RESOLUTION	RED LEVEL	
SETUP CAMERA	BLUE LEVEL	
SETUP ETHERNET	BLACK LEVEL	
SETUP WIFI	HUE	
	SATURATION	

ℹ The "COLOR" function makes it possible to adapt the camera chip to the ambient light so that color-neutral images can be acquired.

Enabling automatic white balance

1. Press the ▤ button on the remote control.

2. Call up the "COLOR" entry.

3. Set the value for "WB MODE" to "AUTO".

4. Press the ▤ button to exit the menu.

ℹ The values for "RED" and "BLUE" cannot be adjusted if the "WB MODE" setting is set to "AUTO".

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COLOR (Manual White Balance)

Main menu	Sub menu color	
COLOR	SET WB	PRESS OK
EXPOSURE	**WB MODE** ◄	**MANUAL** ►
RESOLUTION	RED LEVEL	
SETUP CAMERA	BLUE LEVEL	
SETUP ETHERNET	BLACK LEVEL	
SETUP WIFI	HUE	
	SATURATION	

ℹ️ The "COLOR" function makes it possible to adapt the camera chip to the ambient light so that color-neutral images can be acquired.
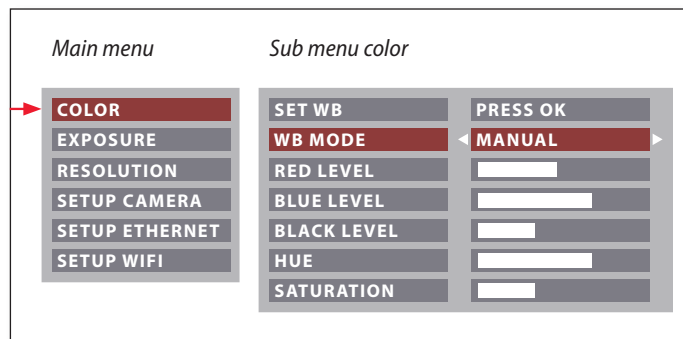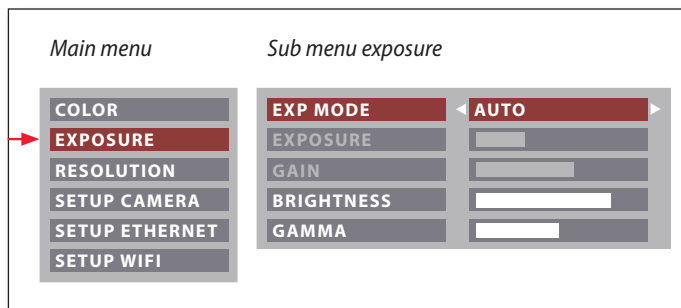
Adjusting the white balance manually (recommended)

1. Move the specimen out of the field of view so that only the illumination is seen.

2. Press the ☰ button on the remote control.

3. Call up the "COLOR" entry.

4. Set the "WB MODE" to "MANUAL".

5. If necessary, correct the values for "RED" and "BLUE" until the image shows a uniform gray area.

6. Press the ☰ button to exit the menu.

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EXPOSURE

Main menu   Sub menu exposure

COLOR		EXP MODE	◄ AUTO ►
EXPOSURE		EXPOSURE	
RESOLUTION		GAIN	
SETUP CAMERA		BRIGHTNESS	
SETUP ETHERNET		GAMMA	
SETUP WIFI			

Main menu   Sub menu exposure

COLOR		EXP MODE	◄ MANUAL ►
EXPOSURE		EXPOSURE	
RESOLUTION		GAIN	
SETUP CAMERA		BRIGHTNESS	
SETUP ETHERNET		GAMMA	
SETUP WIFI			

Automatic exposure

1. Press the ▤ button on the remote control.

2. Call up the command for automatic exposure (see diagram at the left).

3. Set the value for "EXP MODE" to "AUTO".

4. Correct the values for "BRIGHTNESS" and "GAMMA" until you obtain the desired results for the image.
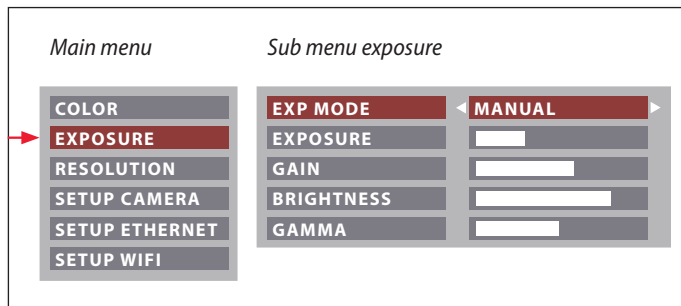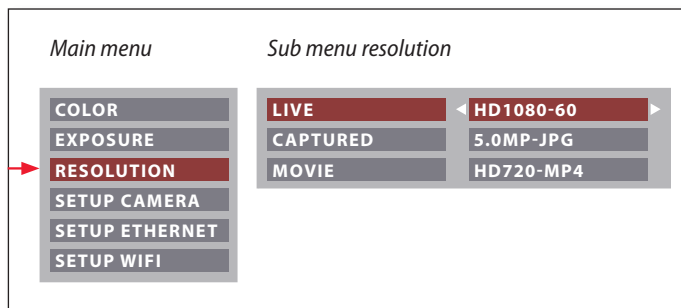
Manual exposure

1. Press the ▤ button on the remote control.

2. Call up the command for manual exposure (see diagram at the left).

3. Set the value for "EXP MODE" to "MANUAL".

4. Correct the values for "EXPOSURE", "GAIN" and "GAMMA" until you obtain the desired results for the image.

RESOLUTION

Main menu   *Sub menu resolution*

| COLOR |
| EXPOSURE |
| RESOLUTION |
| SETUP CAMERA |
| SETUP ETHERNET |
| SETUP WIFI |

LIVE	◄ HD1080-60 ►
CAPTURED	5.0MP-JPG
MOVIE	HD720-MP4

LIVE (resolution of the live image)
Defines the resolution of the live image.

CAPTURED (resolution of the captured image)
Defines the resolution of the captured image on the SD card.
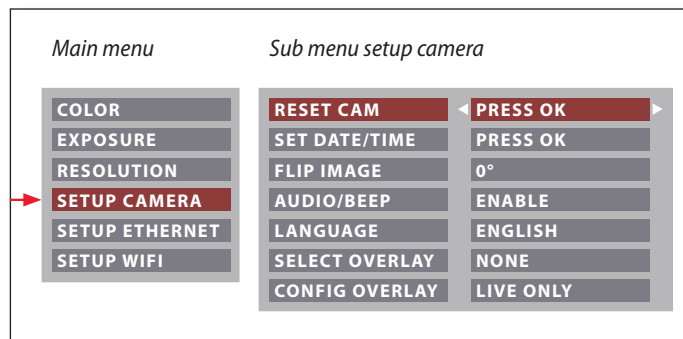
MOVIE (resolution of videos)
Indicates the resolution of the captured videos on the SD card.

ℹ️ The "RESOLUTION" menu enables you to define the resolution for the live image, still image capture and video capture individually. This provides optimum results in every situation.

SETUP CAMERA (Camera Settings)

Main menu	Sub menu setup camera	
COLOR	RESET CAM	◄ PRESS OK ►
EXPOSURE	SET DATE/TIME	PRESS OK
RESOLUTION	FLIP IMAGE	0°
SETUP CAMERA	AUDIO/BEEP	ENABLE
SETUP ETHERNET	LANGUAGE	ENGLISH
SETUP WIFI	SELECT OVERLAY	NONE
	CONFIG OVERLAY	LIVE ONLY

ℹ The camera settings enable you to control internal parameters such as the date or time, reset the camera, etc.

RESET CAMERA
This command resets the camera to the factory settings. All user information (such as white balance, resolution etc.) is reset.

SET DATE TIME
This command sets the date and time as well as the format for displaying them. The following formats are available for selection: YYMMDD – DDMMYY – MMDDYY

FLIP IMAGE
Select to flip image 180°.

AUDIO/BEEP
You can decide to have a tone from the camera for some functions.

LANGUAGE
Select the language of the On Screen Display.

SELECTING IMAGE OVERLAYS (SELECT OVERLAY)
Press ◄ ► to select another overlay. Press OK to activate the selected overlay and leave the menu.

ℹ If you want to quickly display other overlays, press when the live image is displayed ▼ ▲ to show the next or previous respective overlay.

CONFIGURING IMAGE OVERLAYS (CONFIG OVERLAY)
Depending on the setting, this does not show an overlay, only shows the overlay in the live image or shows it in both the live image and the image capture.

SETUP ETHERNET

Main menu   *Sub menu Ethernet*
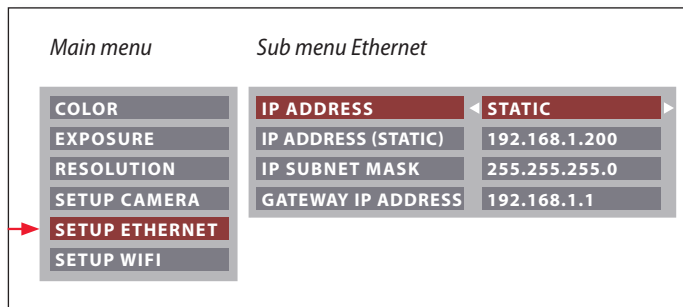
COLOR		IP ADDRESS	◄ DHCP (Dynamic) ►
EXPOSURE		IP ADDRESS (STATIC)	
RESOLUTION		IP SUBNET MASK	
SETUP CAMERA		GATEWAY IP ADDRESS	
➤ SETUP ETHERNET			
SETUP WIFI			
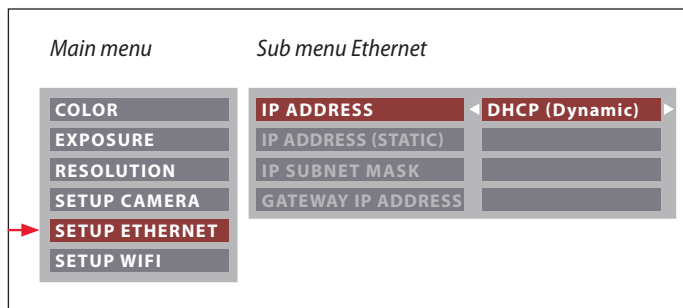
ℹ️ This menu allows you to customize parameters relevant to working in Ethernet mode. Consult with your local IT expert for information relating to your local network.

Main menu   *Sub menu Ethernet*

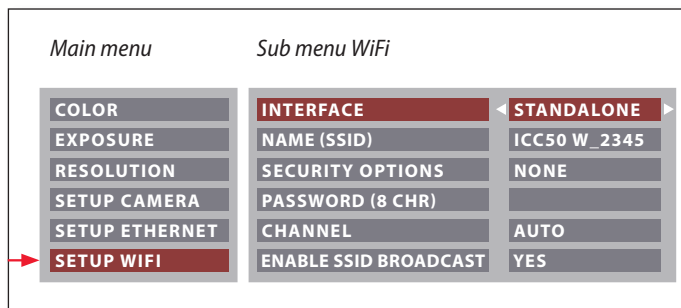| COLOR		IP ADDRESS	◄ STATIC ►
EXPOSURE		IP ADDRESS (STATIC)	192.168.1.200
RESOLUTION		IP SUBNET MASK	255.255.255.0
SETUP CAMERA		GATEWAY IP ADDRESS	192.168.1.1
➤ SETUP ETHERNET			
SETUP WIFI			

IP ADDRESS
You can decide if you want the IP address to be set by your network (Dynamic) or by you using the onscreen keyboard (Static).

If you selected "STATIC" for the IP address you can input the following using the onscreen keyboard:

- IP address
- IP subnet mask
- Gateway IP address

↵

SETUP WiFi

Main menu   Sub menu WiFi

COLOR		INTERFACE	◄ STANDALONE ►
EXPOSURE		NAME (SSID)	ICC50 W_2345
RESOLUTION		SECURITY OPTIONS	NONE
SETUP CAMERA		PASSWORD (8 CHR)	
SETUP ETHERNET		CHANNEL	AUTO
SETUP WIFI		ENABLE SSID BROADCAST	YES

ℹ️ This menu allows you to customize parameters relevant to working in WiFi mode.

INTERFACE – STAND ALONE
The camera is the access point.

INTERFACE – NETWORK
Your network provides the access point and the camera connects to your network by WiFi.

NAME (SSID)
This is the camera name which will appear. You can change the name using the onscreen keyboard.

SECURITY OPTIONS – NONE
This means there is no password.

SECURITY OPTIONS – WPA2-PSK AES
This allows you to create a password.

PASSWORD
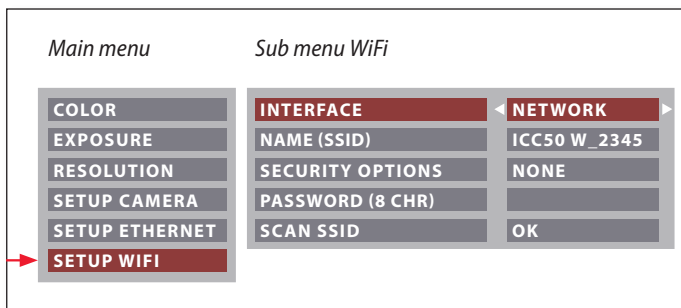Create a password using the onscreen keyboard.

CHANNEL
When stand alone is selected as the interface, this allows the WiFi channel to be set automatically or by the user.

ENABLE SSID BROADCAST
When stand alone is selected as the interface, you can decide if you want the camera name to be seen as available to connect.

↵

SETUP WiFi (Continued)

Main menu	Sub menu WiFi	
COLOR	INTERFACE	◄ NETWORK ►
EXPOSURE	NAME (SSID)	ICC50 W _2345
RESOLUTION	SECURITY OPTIONS	NONE
SETUP CAMERA	PASSWORD (8 CHR)	
SETUP ETHERNET	SCAN SSID	OK
→ SETUP WIFI		

SCAN SSID
If "OK" is selected, you will see a list of WiFi access points nearby.

Pairing Cameras With Remotes

Pairing

ℹ️ The Leica ICC50 W and the remote control can be paired and then only respond to each other. This can be helpful when using multiple cameras and remote controls.

1. Press the 🖉 button to start or end the process.

ℹ️ In order to achieve successful pairing and avoid pairing by mistake, the second step must be performed within 4 seconds.

ℹ️ If a "timeout" is displayed after 4 seconds, press the "Pair" button again to start the process.

2. Press and hold the button on your remote you want to define as the pairing button until a corresponding confirmation is displayed on the HD monitor. All of the buttons except the 🖉 button can be used for this.

3. The microscope only responds to the remote control commands from this remote control.

Resetting to factory setting

1. Press the button 🖉 to start the process.

2. Press the button (WB) until a corresponding confirmation is displayed on the HD monitor.

↵

Go!

Ready! Set! Go!

Now all you need to do is properly set up your microscope, capture your images, and enjoy!

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Specifications

Due to the technology of the camera, the specifications are changing regularly. Please visit our website www.leica-microsystems.com/education for the latest brochure downloads to find the up to date specifications.

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Specifications

Operating environment

Feature	Specification
Temperature Operating Storage	+10℃ to +40℃ (50°F – 104°F) -20℃ to +55℃ (-4°F – 131°F)
Relative humidity (maximum) Operating/Storage	10 % to 90 % (noncondensing)
Alitude (maximum) Operating Nonoperating	0 m to 2,000 m (0 ft to 6,561 ft) 0 m to 10,668 m (0 ft to 35,000 ft)
Pollution Degree Rating	2

Ports and connectors

Feature	Specification
USB	one standard USB 2.0 (Typ B)
Video	one standard HDMI connector (Typ A)
Network adapter	one RJ-45 connector
Memory card reader	supports up to 32 GB
Power supply	via USB cable to external power supply, microscope stand or PC
Power requirment	max. 10 W

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The statement by Ernst Leitz in 1907, "With the User, For the User," describes the fruitful collaboration with end users and driving force of innovation at Leica Microsystems. We have developed five brand values to live up to this tradition: Pioneering, High-end Quality, Team Spirit, Dedication to Science, and Continuous Improvement. For us, living up to these values means: Living up to Life.

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