



# TROTEC

# **Table of contents**

Information on the use of this instructions	2
Safety	2
Information about the device	4
Transport and storage	7
Start-up	7
Operation	8
Software	10
Errors and faults	14
Maintenance and repair	14
Disposal	14

# Information on the use of this instructions

#### **Symbols**

#### Warning of electrical voltage

This symbol indicates dangers to the life and health of persons due to electrical voltage.



#### Warning

This signal word indicates a hazard with an average risk level which, if not avoided, can result in serious injury or death.



#### Caution

This signal word indicates a hazard with a low risk level which, if not avoided, can result in minor or moderate injury.

#### Notice

This signal word indicates important information (e.g. material damage), but does not indicate hazards.

# lnfo

Information marked with this symbol helps you to carry out your tasks quickly and safely.



#### Follow the manual

Information marked with this symbol indicates that the instructions must be observed.

You can download the current version of the instructions and the EU declaration of conformity via the following link:



VSC3008



https://hub.trotec.com/?id=39601

# Safety

Read this manual carefully before starting or using the device. Always store the manual in the immediate vicinity of the device or its site of use.



# Warning

Read all safety warnings and all instructions. Failure to follow the warnings and instructions may result in electric shock, fire and/or serious injury. Save all warnings and instructions for future reference.

- Do not use the device in potentially explosive rooms or areas and do not install it there.
- Do not use the device in aggressive atmosphere.
- Do not use the device in atmospheres containing oil, sulphur, chlorine or salt.
- Protect the device from permanent direct sunlight.
- Do not open the device.
- Do not remove any safety signs, stickers or labels from the device. Keep all safety signs, stickers and labels in legible condition.
- Insert the battery into the battery compartment according to the correct polarity.
- Remove the battery from the device if you will not be using the device for a longer period of time.
- Observe the storage and operating conditions (see Technical data).

#### Intended use

Only use the device for the visualization of objects.

To use the device for its intended use, only use accessories and spare parts which have been approved by Trotec.

Any use other than the intended use is regarded as misuse.

#### **Reasonably foreseeable misuse**

Do not use the device:

- in potentially explosive atmospheres
- in live environments
- in unsuitable liquids, e.g. acids and alkalis
- on people or animals

Do not use the control unit with display underwater.

Any unauthorised modifications, alterations or structural changes to the device are forbidden.

#### **Personnel qualification**

People who use this device must:

 have read and understood the instructions, especially the Safety chapter.

#### **Residual risks**



#### Warning of electrical voltage

Electric shock due to contact with live parts! Do not touch any live parts. Secure neighbouring live parts by covering them or by switching them off.

#### Warning of electrical voltage

There is a risk of a short-circuit due to liquids penetrating the housing!

Do not immerse the device and the accessories in water. Make sure that no water or other liquids can enter the housing.



#### Warning of electrical voltage

Work on the electrical components must only be carried out by an authorised specialist company!



### Warning of explosive substances

Do not expose the batteries to temperatures above 60 °C! Do not let the batteries come into contact with water or fire! Avoid direct sunlight and moisture. There is a risk of explosion!



#### Warning

Risk of suffocation! Do not leave the packaging lying around. Children may use it as a dangerous toy.



#### Warning

The device is not a toy and does not belong in the hands of children.



#### Warning

Dangers can occur at the device when it is used by untrained people in an unprofessional or improper way! Observe the personnel qualifications!



# Caution

Lithium-ion batteries might catch fire in case of overheating or damage. Ensure a sufficient distance to heat sources, do not subject lithium-ion batteries to direct sunlight and make sure not to damage the casing. Do not overcharge lithium-ion batteries. If the battery is not permanently installed in the device, only use smart chargers that switch off automatically when the battery is fully charged. Charge lithium-ion batteries in due time before they are discharged completely.



Caution

Keep a sufficient distance from heat sources.

#### Notice

To prevent damages to the device, do not expose it to extreme temperatures, extreme humidity or moisture.

#### Notice

To prevent water damages to the device, please observe the different types of protection of the housing and the gooseneck probe.

The housing is splash-proof (IP54), the gooseneck probe can be immersed in water (IP67, 1 m/30 min).

#### Notice

Using the device continuously over several hours causes an increased heat generation in the LEDs in the probe tip. To increase the lifetime of both the LEDs and the imaging sensor we recommend allowing the device to cool down at ambient temperatures for at least 10 to 15 minutes with the power switched off after a long period of use.

#### Notice

Do not use abrasive cleaners or solvents to clean the device.

# Information about the device

## **Device description**

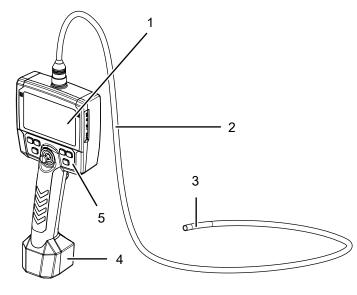
The device VSC3008 serves for inspecting concealed machine components and poorly accessible or inaccessible hollows.

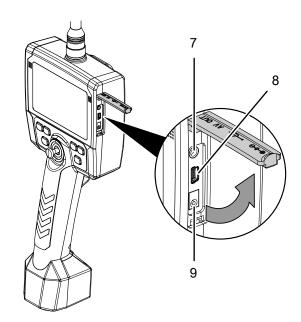
A high-resolution camera and a moveable camera head with a very bright LED illumination are available for the display and capturing/recording of images and videos.

The device's functions can be controlled via an integrated operator software.

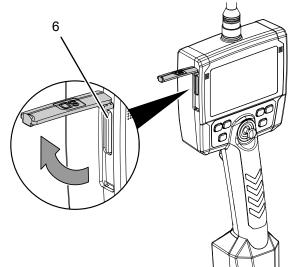
The recordings and measurements can be stored on an SD card and transmitted via a USB interface.

#### **Device depiction**



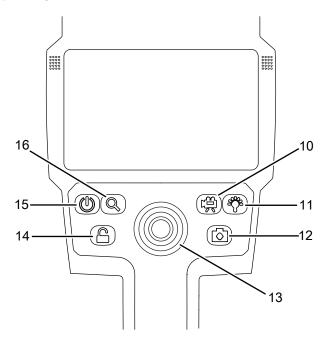


No.	Designation
1	Display
2	Probe cable
3	Fully flexible camera head
4	Battery pack with charger/power adapter connector
5	Operating elements
6	Slot for SD card
7	Audio/video signal output
8	Port for a mini USB cable
9	Connector for the power adapter



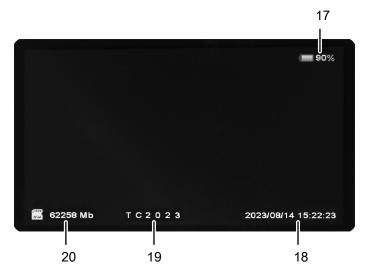
5

# **Operating elements**



No.	Designation	Meaning
10	Video button	Starting or stopping a video recording
11	<i>Brightness</i> button	Setting the light intensity at the camera head
12	Photo button	Taking a photo
13	Joystick	Controlling the camera orientation and the menu
14	Lock button	Locking or releasing the camera head in the current position
15	<i>Power</i> button	Switching the device on and off, calling up the main menu, leaving a menu
16	Zoom button	Zooming in (1x, 2x, 3x)

# Display



No.	Indication	Meaning
17	Battery status	Indicates the charge status of the battery
18	Time stamp	Displays date and time
19	Watermark	Displays the personalised stamp that is printed on photos
20	Memory card	Displays the available memory space on the inserted memory card

# TROTEC

# **Technical data**

6

Parameter	Value		
Model	VSC3008		
Article number	3.510.009.640		
System	Type of lighting	6 white LEDs (colour temperature 5,000 to 6,000 K)	
	Luminous intensity	50,000 lux	
	White balance	4 setting options (automatic, sunlight, clouded, artificial light)	
	Brightness control	manually adjustable	
	LCD display	4.3-inch TFT LCD (800 x 480 px [Wide VGA])	
	Interfaces	USB, analogue video (HDTV)	
	Memory	slot for removable SD card (max. 32 GB)	
	File formats	JPEG image format, AVI video format	
	Power supply	5 V lithium polymer battery pack; power adapter (input: AC 100 V to 240 V, 50/60 Hz, 0.2 A, output: DC 5 V, 1.0 A)	
	Operating time	> 4 h	
Probe	Dimensions	length 3 m, ø 8 mm	
	Design	exterior: tungsten wire mesh for high torsional strength, inner layer: polyurethane on steel spiral	
	Bending	up / down / left / right $\approx 120^{\circ}$	
	Type of protection	IP67, oil-resistant	
Camera	Image sensor	CMOS	
	Resolution	440,000 pixels	
	Field of vision	130°	
	Camera head	stainless steel with titanium coating	
	DOF	15 mm - ∞	
	Zoom	3x digital	
Control software	Operator guidance	simple interactive menu control, menu navigation via joystick	
	Available menu languages	German, English, French, Italian, Dutch, Spanish, Portuguese, Polish, Danish, Finnish, Russian, Simplified Chinese, Japanese, Korean	
	Software functions	system settings, video settings, memory functions	
Ambient conditions	Temperature	-10 °C to +50 °C	
	Humidity	< 90 % RH	
	Type of protection (housing)	IP54	
Physical characteristics	Construction	ABS housing with integrated bumpers	
	Dimensions	410 x 154 x 80 mm	
	Weight	960 g (incl. batteries)	

#### Scope of delivery

- 1 x Videoscope VSC3008
- 1 x Battery pack 5 V DC
- 1 x Transport case
- 1 x Power adapter/charger
- 1 x AV cable
- 1 x Quick guide
- 1 x SD card
- 1 x LCD cleaning cloth

# **Transport and storage**

#### Notice

If you store or transport the device improperly, the device may be damaged.

Note the information regarding transport and storage of the device.

#### Transport

For transporting the device, use the transport case included in the scope of delivery in order to protect the device from external influences.

The supplied Li-ion batteries are subjects to the requirements of dangerous goods legislation.

Observe the following when transporting or shipping Li-ion batteries:

- The user may transport the batteries by road without any additional requirements.
- If transport is carried out by third parties (e.g. air transport or forwarding company), special requirements as to packaging and labelling must be observed. This includes consulting a dangerous goods specialist when preparing the package.
  - Only ship batteries if their housing is undamaged.
  - Mask open terminals with tape and pack the battery in a way that it cannot move inside the packaging.
  - Please also observe any other national regulations.

#### Storage

When the device is not being used, observe the following storage conditions:

- dry and protected from frost and heat
- protected from dust and direct sunlight
- For storing the device, use the transport case included in the scope of delivery in order to protect the device from external influences.
- the storage temperature complies with the values specified in the Technical data
- Battery/Batteries removed during prolonged storage

# Start-up

#### Charging the battery

Before using the device for the first time, it may be necessary to charge the battery.

- The battery can either be inserted in the device or removed for charging.
- If the battery is inserted, the device should be switched off during charging.
- 1. Plug the power adapter into the connector at the battery (22).
- 2. Plug the power adapter into the socket.
  - $\Rightarrow$  The battery is charging.
  - ⇒ The voltage of the lithium-ion battery is 3.7–4.2 V. It is charged with a 5V charger.



# 🔪 Info

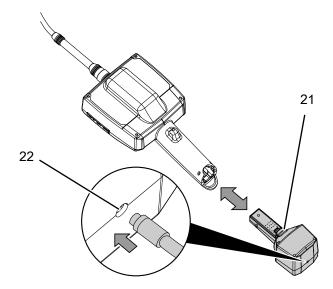
The power adapter may become hot during charging of the battery, particularly if the videoscope is operated while the power adapter is connected. This is normal and does not affect its functioning.

#### Inserting the battery

Before using the device for the first time, it may be necessary to insert the battery. The battery can be inserted and, if necessary, removed as follows:

#### Notice

Make sure that the surface of the device is dry and the device is switched off.



- 1. Observing the correct orientation, push the battery into the device until it engages.
  - $\Rightarrow$  The battery is inserted.
- 2. To remove the battery, press the button (21) on the back of the battery.

7

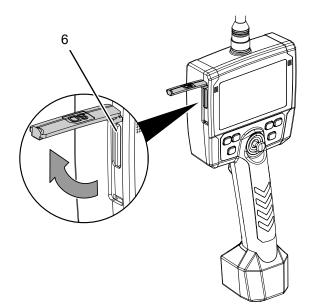
3. Hold the button and pull the battery out of the device.

#### Notice

Alternatively, the device can be operated with the power adapter connected. For this purpose, connect the supplied power adapter with the connector (22).

#### Inserting the SD card

- 1. Open the rubber tab on the left side of the device.
- 2. Insert the SD card in the SD card slot (6).
  - ⇒ The printed side of the SD card should point up and the rounded corner to the bottom right.
- 3. Slightly press down the SD card until it engages.



Close the rubber tab. 4.

## Operation

#### Switching the device on

- 1. Press the *Power* button (15) for approx. 5 seconds.
  - $\Rightarrow$  An acoustic signal will be emitted three times. The display will be switched on and the device ready for operation.

#### Aligning / moving / holding the camera

#### Notice

Avoid pulling on the probe cable while the lock is enabled. The camera head and the cable may get damaged!

The camera head is held in position by the lock (padlock symbol) and can thus inadvertently become a barbed hook.



If the position of the camera head is maintained for at least three seconds via the cursor, the lock is automatically activated!

- 1. Use the joystick (13) to move the camera (3) in the desired direction.
- 2. Hold the joystick in this position and press the Lock button (14).
  - $\Rightarrow$  The camera head is fixed in its position.
  - $\Rightarrow$  A padlock symbol appears on the display.
  - $\Rightarrow$  The joystick (13) is locked.
- 3. Press the *Lock* button (14) again to unlock the camera head.
  - $\Rightarrow$  The camera head moves back to a neutral position.
  - $\Rightarrow$  The padlock symbol on the display disappears.

#### Notice

Always unlock the camera head before pulling the probe cable out of the inspected hollow space to prevent the camera head from getting caught, and thus to avoid damage to the Bowden cables in the probe cable!

#### Taking a picture

- 1. Press the *Photo* button (12).
  - $\Rightarrow$  The picture is taken and saved.

#### **Recording a video**

- 1. Press the *Video* button (10).
  - $\, \Rightarrow \,$  The videoscope switches to recording mode.
  - $\Rightarrow$  The recording is started.
  - $\Rightarrow$  The recording symbol (23) appears on the display.
  - $\Rightarrow$  The set watermark and time stamp are displayed.



- 2. Press the *Video* button (10) again.
  - $\Rightarrow$  The recording is stopped.

### Viewing and editing recordings

- 1. Press the joystick (13) for approx. 5 seconds.
  - $\Rightarrow$  The browser for recordings opens.



2. Move the joystick up/down or to the right/left to navigate through the files.

3. Press the joystick lightly to open the desired file. ⇒ The file is displayed.

24		25
C2023	2023/08/15 15:53:10	29/29

- ⇒ The symbol at the top left (24) indicates whether it is an image or video file.
- $\Rightarrow$  The sequence number (25) of the file is displayed at the top right.
- 4. Move the joystick to the right/left to move from one image/video file to the next.
- 5. Press the joystick lightly again to play a video file.
  ⇒ The video is played back.

00:00:01			
	0 <del>1</del> 4 0 11	> >> menu 🗖	

- 6. Use the joystick to control the playback of the video.
  - ⇒ By moving the joystick to the right/left you can adjust the playback speed of the video.
  - ⇒ By pressing the joystick lightly you can pause or continue playback.
- 7. Briefly press the *Power* button (15) to terminate playback.
- 8. To enlarge a section of an image file, press the *Zoom* button (16).
  - ⇒ In this mode, magnifications of up to three times are possible.
- 9. Move the enlarged section to the desired position in the image by moving the joystick up/down or to the right/left.
- 10. Press the joystick to cut out the selected part of the enlarged image.
- 11. To exit the zoom mode briefly press the *Power* button (15).

# TROTEC

- 12. To delete a file, press the joystick for approx. 3 seconds while the file is open.
  - A confirmation prompt to delete the selected file opens. You can choose between "OK" and "Cancel".
- 13. Use the joystick to navigate to the desired option and confirm by pressing the joystick.
- 14. To return to the live image mode briefly press the *Power* button twice.

#### Switching the device off

- 1. Press the *Power* button (15) for approx. 2 seconds.
  - $\Rightarrow$  The device switches off.

# Software

The device has various setting options which can be accessed via an operator software.

- 1. Briefly press the *Power* button (15).
  - $\Rightarrow$  The menu will be displayed.



- 2. Move the joystick (13) up/down to navigate through the submenus.
- 3. To select a submenu, press the joystick.
- 4. To exit a submenu, press the *Power* button or briefly move the joystick to the left.

### Video setting submenu

Screen Setting	White Balance	÷
Data Setting	Exposure Image Mode	
System settin	B&W	OFF
Storage Settir		

#### The submenu offers the following options:

Setting	Function
White Balance	Setting the white balance
Exposure	Setting the exposure
Image Mode	Setting the image mode
B&W	Activating/deactivating black and white mode

#### Setting the white balance

- 1. Use the joystick (13) to select the White Balance option.
- 2. Press the joystick to open the *White Balance* menu.
- 3. Select the desired setting using the joystick.
- 4. Press the joystick to confirm your selection.

#### Setting the exposure

- 1. Use the joystick (13) to select the *Exposure* option.
- 2. Press the joystick to open the *Exposure* menu.
- 3. Select the desired setting using the joystick.
- 4. Press the joystick to confirm your selection.

#### Setting the image mode

- 1. Use the joystick (13) to select the *Image Mode* option.
- 2. Press the joystick to open the *Image Mode* menu.
- 3. Select the desired setting using the joystick.
- 4. Press the joystick to confirm your selection.

#### Activating black and white mode

- 1. Use the joystick (13) to select the *B&W* option.
- 2. Press the joystick to open the *B&W* menu.
- 3. Select the desired setting using the joystick.
- 4. Press the joystick to confirm your selection.

### Screen Setting submenu

Video setting		
Screen Setting	Screen Brightness	Ч
Data Setting	Screen Contrast Screen Rotation	ч
System setting	Icon Display	ON
Storage Settir	Ruler Line	OFF

The submenu offers the following options:

Setting	Function
Screen Brightness	Setting the brightness level of the display
Screen Contrast	Setting the display contrast
Screen Rotation	Rotating the display
Icon Display	Showing or hiding symbols $(17 - 20)$
Ruler Line	Showing or hiding the ruler line

#### Setting the brightness level of the display

- 1. Use the joystick (13) to select the *Screen Brightness* option.
- 2. Press the joystick to open the *Screen Brightness* menu.
- 3. Select the desired value using the joystick.
- 4. Press the joystick to confirm your selection.

#### Setting the display contrast

- 1. Use the joystick (13) to select the *Screen Contrast* option.
- 2. Press the joystick to open the *Screen Contrast* menu.
- 3. Select the desired value using the joystick.
- 4. Press the joystick to confirm your selection.

#### Rotating the display

- 1. Use the joystick (13) to select the *Screen Rotation* option.
- 2. Press the joystick to open the *Screen Rotation* menu.
- 3. Select the desired option using the joystick.
- 4. Press the joystick to confirm your selection.

#### Showing or hiding symbols

- 1. Use the joystick (13) to select the *lcon Display* option.
- 2. Press the joystick to open the *lcon Display* menu.
- 3. Select the desired option using the joystick.
- 4. Press the joystick to confirm your selection.
  - $\Rightarrow$  The symbols (17 20) are shown or hidden.

#### Showing or hiding the ruler line

- 1. Use the joystick (13) to select the *Ruler Line* option.
- 2. Press the joystick to open the *Ruler Line* menu.
- 3. Select the desired option using the joystick.
- 4. Press the joystick to confirm your selection.
  - $\Rightarrow$  The ruler line is shown or hidden.

#### **Date Setting submenu**



Setting	Function
Date and Time Setting	Setting the date and time
Language Setting	Setting the menu language
Sounds	Setting the signal sounds

Setting the date and time

- 1. Use the joystick (13) to select the *Date Setting* option.
- 2. Press the joystick to open the *Date Setting* menu.
- 3. Move the joystick to the left or right to select the year, date or time.
  - $\Rightarrow$  The current selection is highlighted by a square.
- 4. Move the joystick up or down to set the value for the current selection.
- 5. Repeat steps 3 and 4 until the date and time are set as desired.
- 6. Press the joystick to confirm the settings.

#### Setting the menu language

- 1. Use the joystick (13) to select the Language Setting option.
- 2. Press the joystick to open the Language Setting menu.
- 3. Select the desired menu language using the joystick.
- 4. Press the joystick to confirm your selection.

#### Setting the signal sounds

- 1. Use the joystick (13) to select the *Sounds* option.
- 2. Press the joystick to open the *Sounds* menu.
- 3. Use the joystick to select the desired setting and move the joystick to the left or right to adjust the setting.
  - ⇒ Press *Shutter* to switch the shutter sound for image recordings on or off.
  - ⇒ Press *Start-up sound* to switch the melody for system start on or off.
  - $\Rightarrow$  Press *Beep* to switch the button sounds on or off.
  - $\Rightarrow$  *Volume* is used to adjust the volume of the sounds.
- 4. Press the joystick to confirm your selection.

#### System settings submenu

Video setting		
Screen Setting	Power frequency	<u>50.0z</u>
Ocreen Oeraniş	TV System	PAL
Data Setting	Power Save	OFF
System setting	Firmware Update	
	System reset	
Storage Settir		

The submenu offers the following options:

Setting	Function						
Power Frequency	Selecting the power frequency 50 Hz or 60 Hz						
TV System	Selecting NTSC or PAL						
Power Save	Selecting automatic shutdown to save energy						
Firmware Update	Updating the system software						
System reset	Resetting the system to factory settings						

#### Setting the power frequency

- 1. Use the joystick (13) to select the *Power Frequency* option.
- 2. Press the joystick to open the *Power Frequency* menu.
- 3. Select the desired setting using the joystick.
- 4. Press the joystick to confirm your selection.

#### Setting the TV system

This setting must be made before transferring an image from the device to a monitor. Please note that the monitor must support the PAL or NTSC format.

- 1. Use the joystick (13) to select the *TV System* option.
- 2. Press the joystick to open the *TV System* menu.
- 3. Select the compatible setting for your monitor using the joystick.
- 4. Press the joystick to confirm your selection.
- 5. If necessary, make the required settings at the monitor.
- 6. Connect the device to the monitor via the supplied AV cable and the AV output (7).

#### Selecting automatic shutdown

In this mode, the device switches off automatically after the specified time has elapsed without any input.

- 1. Use the joystick (13) to select the *Power Save* option.
- 2. Press the joystick to open the Power Save menu.
- 3. Use the joystick to select the desired setting and press the joystick to activate it:
  - ⇒ Select *OFF* to deactivate automatic shutdown.
  - ⇒ Select 5 min to set an automatic switch-off after 5 minutes.
  - ⇒ Select 10 min to set an automatic switch-off after 10 minutes.
  - ⇒ Select 15 min to set an automatic switch-off after 15 minutes.

#### Updating the firmware



# Info

The firmware should only be updated after consultation with the dealer or manufacturer. The firmware update must have been loaded onto the inserted SD card beforehand. The firmware update must not be located in a subfolder.

- 1. Use the joystick (13) to select the *Firmware Update* option.
- 2. Press the joystick to open the *Firmware Update* menu.  $\Rightarrow$  The confirmation prompt is displayed.
- 3. Select the desired setting using the joystick.
  - $\Rightarrow$  Select "yes" to run the update.
  - $\Rightarrow$  Select "no" to cancel the operation.
- 4. Press the joystick to confirm your selection.
- Resetting the system settings

#### Notice

When the system is reset to factory settings, all system settings made are deleted.

- 1. Use the joystick (13) to select the *System reset* option.
- 2. Press the joystick to open the System reset menu.  $\Rightarrow$  The confirmation prompt is displayed.
- 3. Select the desired setting using the joystick.
  - $\Rightarrow$  Select "OK" to reset the device to factory settings.  $\Rightarrow$  Select "Cancel" to cancel the operation.
- 4. Press the joystick to confirm your selection.

### Storage Setting submenu



The submenu offers the following options:

Setting	Function
Auto Save	Switching automatic saving on or off
Format	Formatting the SD card
Image Watermark Model	Designing a watermark and showing/ hiding it

#### Setting Auto Save

- 1. Use the joystick (13) to select the Auto Save option.
- 2. Press the joystick to open the *Auto Save* menu.
- 3. Select the desired setting using the joystick.
- 4. Press the joystick to confirm your selection.

#### Formatting the SD card

#### Notice

If you format the SD card, all image data (photos and videos) will be deleted!

- 1. Use the joystick (13) to select the *Format* option.
- 2. Press the joystick to open the *Format* menu. ⇒ The confirmation prompt is displayed.
- 3. Select the desired setting using the joystick.
  - $\Rightarrow$  Select "OK" to format the SD card.
  - $\Rightarrow$  Select "Cancel" to cancel the operation.
- 4. Press the joystick to confirm your selection.

Setting a watermark

- 1. Use the joystick (13) to select the *Image Watermark Model* option.
- 2. Press the joystick to open the *Image Watermark Model* menu (19).
  - $\Rightarrow$  The input field is opened.

USE JOYSTICK/ENTER TO ENTER TEXT															
	T	C	2	0	2	B									
	A	в	с	D	Е	F	G	н	I	. J	к	L.	м		
	Ν	0	Ρ	Q	R	s	Т	υ	V	W	х	Y	Ζ		
	1	2	з	4	5	6	7	8	9	0	+	-	%		
	•	,	;	:	?	1	1	1	^	<	>	*			
	~	@	#	\$	81	_	!	(	)	{	}	]	]		
												/			

- 3. Select the desired symbols for your watermark using the joystick.
  - ⇒ Press the joystick to save a symbol and move to the next position.
  - $\Rightarrow$  Enter a symbol for each of the 10 digits.
  - ⇒ Use spaces if you want the watermark to have fewer than 10 digits.
- 4. Afterwards, press the *Power* button (15) to close the input field and save the watermark.
- 5. Press the *Power* button (15) before you have entered all 10 digits to close the input field without saving the changes.

EN

# **Errors and faults**

The device has been checked for proper functioning several times during production. If malfunctions occur nonetheless, check the device according to the following list.

#### The device cannot be switched on or crashes:

- Check whether the battery is inserted.
- Charge the battery.
- Remove the battery and connect the supplied power adapter to the device. If the device is working properly now, the battery is defective.

#### The image or video cannot be saved:

- · Check whether the memory card is inserted.
- If necessary, free up storage space by transferring the images and videos to a computer.

#### The displayed image is blurred:

• Check the camera lens for damage or liquid ingress.

#### The display remains dark or no picture is shown:

 By switching on the LEDs, check whether the camera head is supplied with power. If this is the case but the screen still remains dark, the CCD chip may be damaged.

# The device still does not operate correctly after these checks:

• Contact the Trotec customer service.

### Maintenance and repair

#### **Charging the battery**

The battery must be charged when the battery level is low (17) and, if necessary, before first use. To do so, please follow the instructions in the Start-up chapter.

#### Cleaning

Clean the device with a soft, damp and lint-free cloth. Make sure that no moisture enters the housing. Do not use any sprays, solvents, alcohol-based cleaning agents or abrasive cleaners, but only clean water to moisten the cloth.

#### Repair

14

Do not modify the device or install any spare parts. For repairs or device testing, contact the manufacturer.

# Disposal

Always dispose of packing materials in an environmentally friendly manner and in accordance with the applicable local disposal regulations.



The icon with the crossed-out waste bin on waste electrical or electronic equipment is taken from Directive 2012/19/EU. It states that this device must not be disposed of with the household waste at the end of its life. You will find collection points for free return of waste electrical and electronic equipment in your vicinity. The addresses can be obtained from your municipality or local administration. You can also find out about other return options that apply for many EU countries on the website https://hub.trotec.com/?id=45090. Otherwise, please contact an official recycling centre for electronic and electrical equipment authorised for your country.

The separate collection of waste electrical and electronic equipment aims to enable the re-use, recycling and other forms of recovery of waste equipment as well as to prevent negative effects for the environment and human health caused by the disposal of hazardous substances potentially contained in the equipment.



Li-Ion In the European Union, batteries and accumulators must not be treated as domestic waste, but must be disposed of professionally in accordance with Directive 2006/66/EC of the European Parliament and of the Council of 6 September 2006 on batteries and accumulators. Please dispose of batteries and accumulators according to the relevant legal requirements.

#### **Only for United Kingdom**

According to Waste Electrical and Electronic Equipment Regulations 2013 (SI 2013/3113) (as amended) and the Waste Batteries and Accumulators Regulations 2009 (SI 2009/890) (as amended), devices that are no longer usable must be collected separately and disposed of in an environmentally friendly manner.

#### Trotec GmbH

Grebbener Str. 7 D-52525 Heinsberg 3+49 2452 962-400 =+49 2452 962-200

info@trotec.com www.trotec.com