

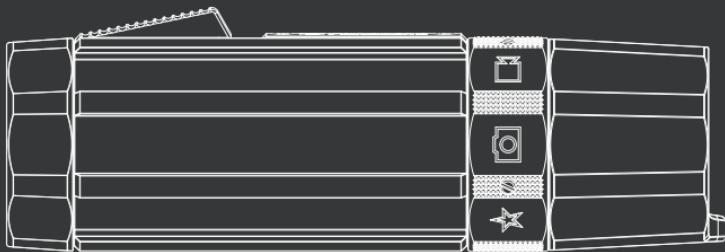


PARALENZ®

DIVE CAMERA

USER MANUAL

v3



PDC-1

Together with our users we design and develop high quality products and solutions – built for a purpose.



www.paralenz.com



facebook.com/paralenz

WWW.PARALENZ.COM

TABLE OF CONTENTS

1. Overview	5. Custom Mode	6.7.4	Flip display	10.3	USB Cable
1.1 What's in the box?	5.1 Mode screen appearance	6.7.5	Choose units	10.4	View your content
1.2 Names of parts	5.2 Record video, slow motion or time lapse	6.7.6	Zero depth	11.	Software updates
1.3 Buttons	5.3 Take a photo burst	7.	Mounts	11.1	Camera firmware updates
1.3.1 Activation Switch	6. Camera settings	7.1	Included mounts	12.	Battery
1.3.2 Selector Ring	6.1 Settings menu	7.2	The T-rail click system	12.1	Charging the battery
2. Getting started	6.2 Turn WiFi on/off	7.3	The Mask Mount	8.	Maintenance
2.1 Attach wrist strap	6.3 White balance (WB)			8.1	Cleaning the camera
2.2 Insert micro SD card	6.4 DCC™ (Depth Color Correction)			8.1.1	Cleaning the O-rings
2.3 Remove micro SD card	6.4.1 What is DCC™?			8.1.2	How do I prevent the camera from flooding?
2.4 Charge the battery	6.4.2 Which DCC setting to use?			8.1.3	Cleaning the switches
2.5 Power on	6.5 Video settings			8.1.4	Cleaning the lens
2.6 Power off	6.5.1 Video resolution			8.2	Transporting the camera
3. Video Mode	6.5.2 Frames per second			15.	Support
3.1 Record video	6.6 Custom settings			16.	Specifications
3.2 Video screen	6.6.1 Custom video			17.	Precautions
3.3 What is a tag?	6.6.2 Slow motion			9.	Replacing parts
3.4 Make tags in video	6.6.3 Time-lapse			9.1	Replacing the lens
4. Photo & Snap record	6.6.4 Photo burst			9.2	Replacing the O-rings on the lens
4.1 Take a photo	6.6.5 Visual overlay			9.3	Other spare parts
4.2 Record a snap video	6.7 Advanced settings			10.	Download content
4.3 What is a snap video?	6.7.1 Format micro SD-card			10.1	The ParalenzDive App
4.4 Photo & Snap video record screen	6.7.2 Which version of firmware is installed on the camera?			10.2	Micro SD-card
	6.7.3 Reset settings on the camera				

1. OVERVIEW

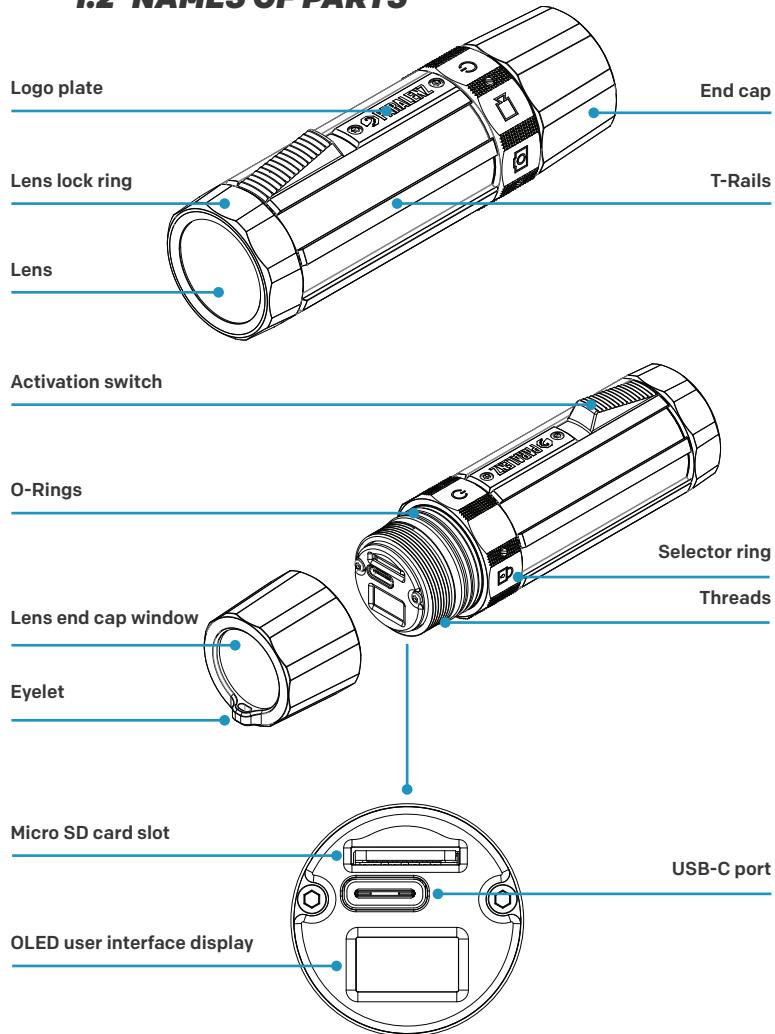
1.1 WHAT'S IN THE BOX?

These items are included in your Paralenz Dive Camera box.



- Intended use:**
The Paralenz Dive Camera is intended to be used under water
– particularly for diving.

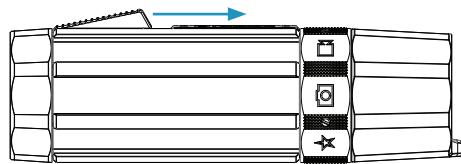
1.2 NAMES OF PARTS



1.3 BUTTONS

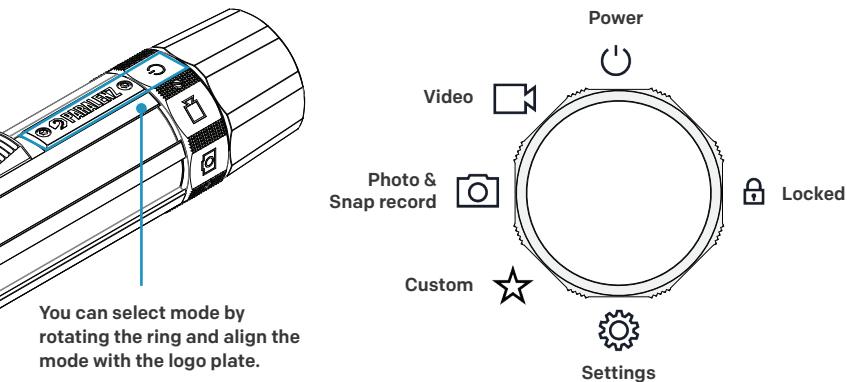
1.3.1 Activation Switch

Pull back the activation switch once and release quickly to 'click'. Hold the activation switch for 1 second or more to 'hold'.



1.3.2 Selector Ring

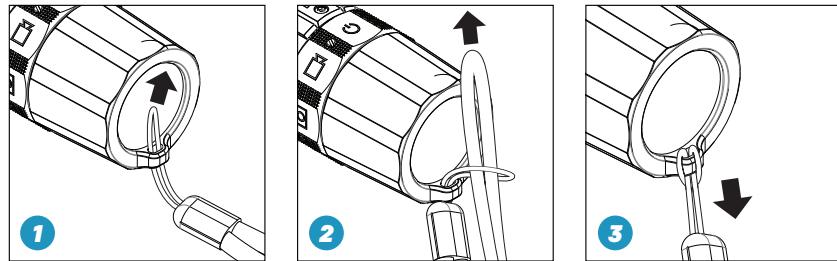
To switch between modes, rotate the selector ring. The icon aligned with the logo plate is the selected mode. Make sure the selector ring is placed correctly (the selector ring will snap to each position).



2. GETTING STARTED

2.1 ATTACH WRIST STRAP

- 1) Put the small cord of the strap through the eyelet on the camera.
- 2) Put the other end of the strap through the loop.
- 3) Tighten the strap.

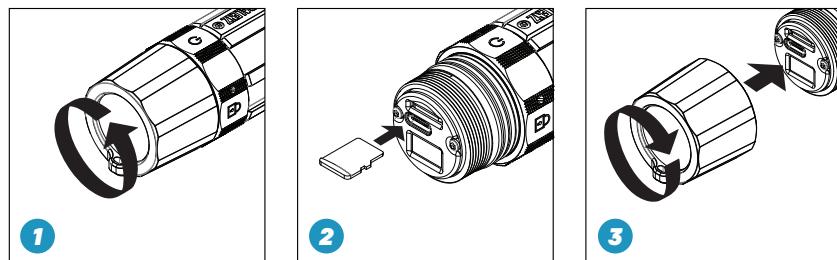


2.2 INSERT MICRO SD CARD



Turn off the camera before inserting the micro SD card. Use only class U3 or V30 SD cards of a well-known brand. A capacity of 32 GB or more is recommended. (Max. 128 GB) (NOT included)

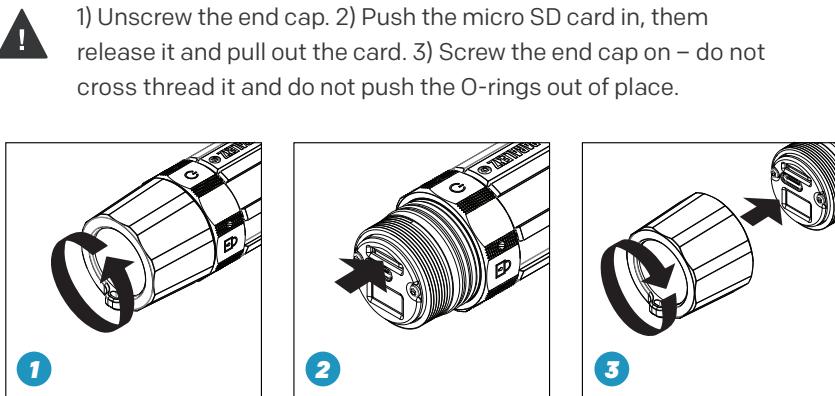
- 1) Unscrew the end cap.
- 2) Insert the micro SD card (logo side up).
- 3) Screw the end cap on – do not cross thread the cap!



2.3 REMOVE MICRO SD CARD

Turn the camera off before removing the card.

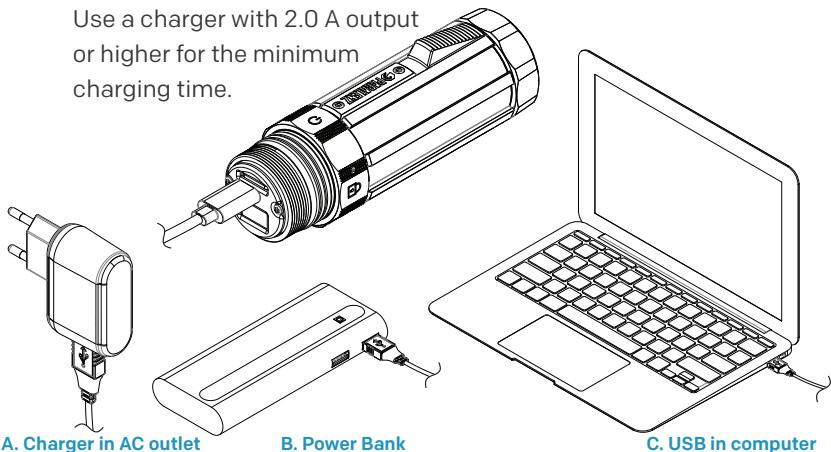
- 1) Unscrew the end cap. 2) Push the micro SD card in, then release it and pull out the card. 3) Screw the end cap on – do not cross thread it and do not push the O-rings out of place.



2.4 CHARGE THE BATTERY

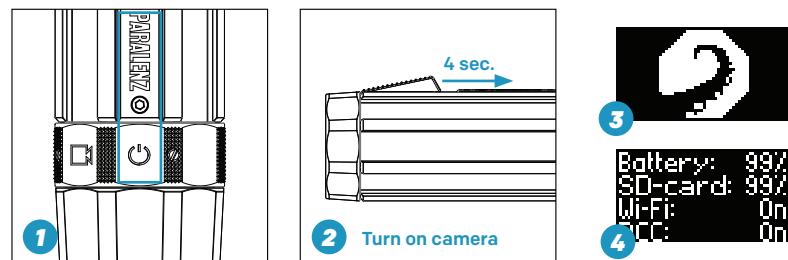
You may use a variety of devices to charge your camera.

Use a charger with 2.0 A output or higher for the minimum charging time.



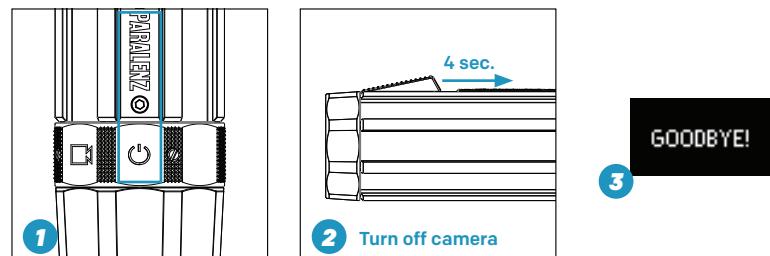
2.5 POWER ON

Rotate the selector ring to power mode position and hold the activation switch for 4 seconds to turn on the camera. The display will show the Paralenz logo and the camera will vibrate. When the camera is ready to use, the display will show the Home screen. This screen will show battery level, SD card storage level, WiFi status and DCC™ status.



2.6 POWER OFF

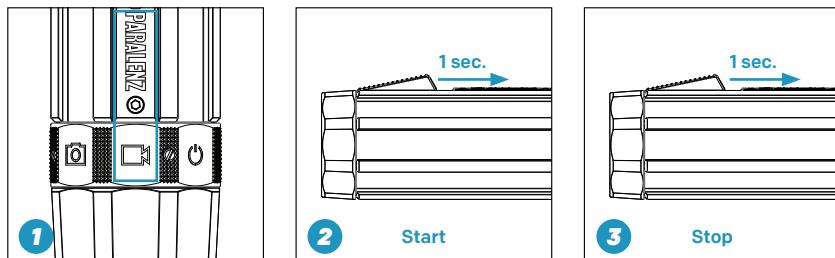
Rotate the selector ring to the power mode and hold the activation switch for 4 seconds to turn off the camera. The display says 'GOODBYE'. When the display turns black, the camera has turned off.



3. VIDEO MODE

3.1 RECORD VIDEO

- 1) Select the video mode on the selector ring.
- 2) Hold the activation switch for 1 second to start recording.
- 3) To stop recording, hold the activation switch for 1 second.



3.2 VIDEO SCREEN

The video screen will appear when the video mode is selected.



! If you use flashlights or floodlights when diving, turn off DCC™.
Click three times to turn off/on the DCC™. The screen will show the DCC™ status. For more information on DCC™ go to section 6.3.

3.3 WHAT IS A TAG?

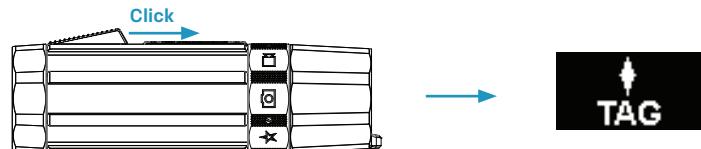
If you record for a long time, a tag will let you find that spot in a long video. The Paralenz app lets you find tags in a long video.



Go to paralenz.com/dive-log-app to download the app.

3.4 MAKE TAGS IN VIDEO

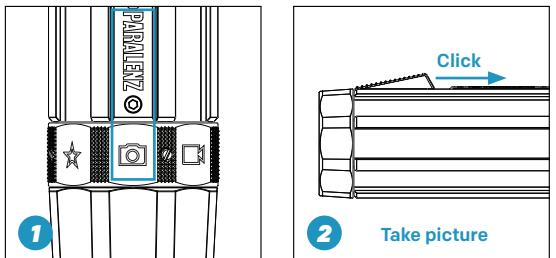
To make tags, click the activation button while recording a video. When a tag has been inserted 'TAG' will appear on the display.



4. PHOTO & SNAP RECORD

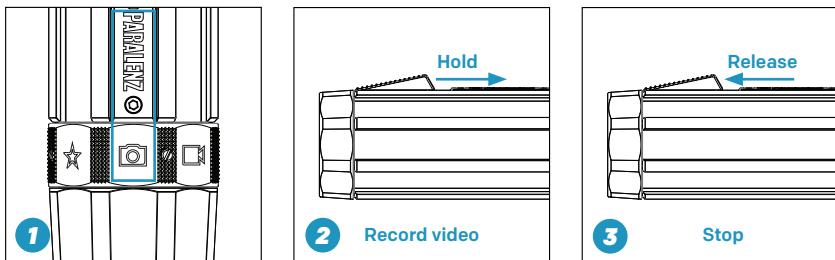
4.1 TAKE A PHOTO

- 1) Select the **photo & snap record-mode** on the selector ring.
- 2) Click the activation switch to take a picture.



4.2 RECORD A SNAP VIDEO

- 1) Select the **photo & snap record-mode** on the selector ring
- 2) Hold and keep holding the activation switch to record
- 3) Release the activation switch to stop the recording



4.3 WHAT IS A SNAP VIDEO?

Snap record is a easy way to switch between pictures and video recording. You only record and photograph what you want to.

4.4 PHOTO & SNAP VIDEO RECORD SCREEN

The **photo & snap record-screen** will appear when the mode is selected.



If you use flashlights or floodlights when diving, turn off DCC™.
Click three times to turn off/on the DCC™. The screen will show the DCC™ status. For more information on DCC™ go to section 6.3.

5. CUSTOM MODE

5.1 MODE SCREEN APPEARANCE

The **custom mode-screen** will appear when the mode is selected.



!
If you use flashlights or floodlights when diving, turn off DCC™.
Click three times to turn off/on the DCC™. The screen will show the DCC™ status. For more information on DCC™ see section 6.4.

The screen can have 1 of 4 different modes assigned to it: video, slow motion, time lapse and photo burst. Go to settings to see how to switch between different custom modes (See chapter 6 – Camera settings).



Video



Slow motion



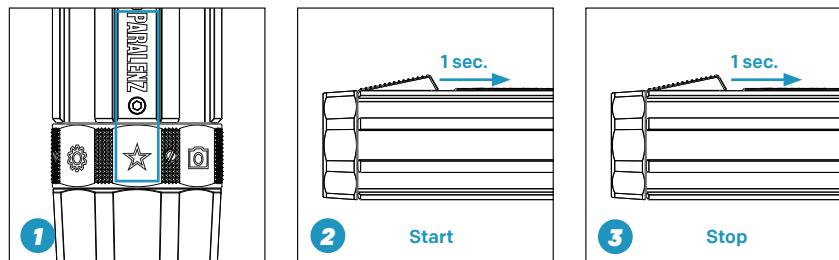
Time lapse



Photo burst

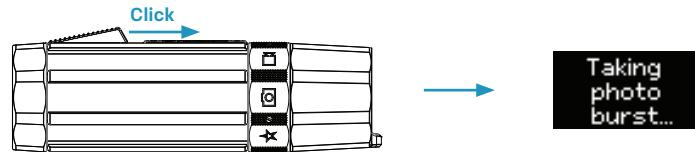
5.2 RECORD VIDEO, SLOW MOTION OR TIME-LAPSE

To record a video, slow motion or time-lapse 1) the custom-mode icon on the selector ring should be selected (make sure that the right custom mode is selected. 2) Hold the activations button for 1 second to start the recording. 3) To stop a recording, hold the activation button for 1 second.



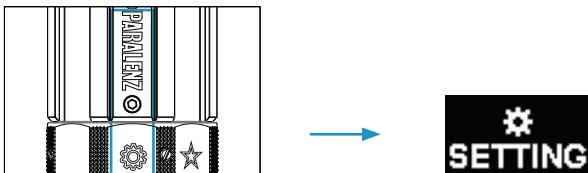
5.3 TAKE A PHOTO BURST

To take a photo burst, click the activation switch. A screen will appear indicating that the camera is taking a photo burst. The camera is ready to use again when that screen disappears.



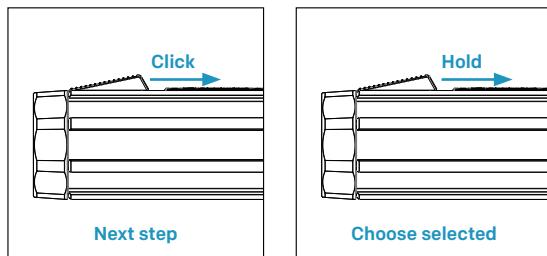
6. CAMERA SETTINGS

Go to the settings mode on the selector ring to select the camera settings (all settings can also be controlled via the app).

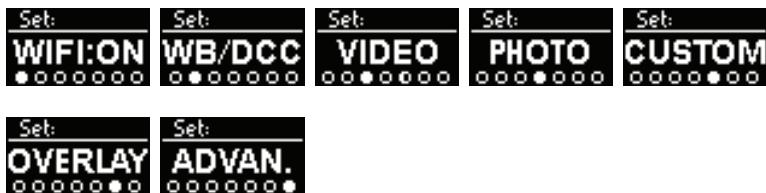


6.1 SETTINGS MENU

When you select Settings on the selector ring, a menu will appear. The first menu consists of 7 different categories: WiFi, WB/DCC™, Video, Photo, Custom, Overlay and Advanced. You navigate the menu by clicking or holding the activation switch. Click once to go to the next step in the menu - hold to choose or enter the selected setting.

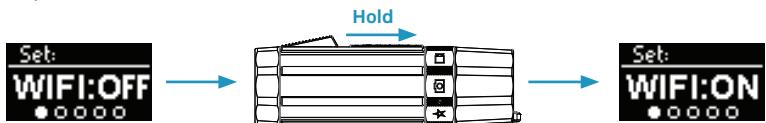


The settings screen categories are as follows.



6.2 TURN WIFI ON/OFF

To change WiFi status go to settings > WiFi. Hold to turn WiFi on/off.



6.3 WHITE BALANCE (WB)

To set the Kelvin (K) value of the white balance, go to the WB/DCC™ screen in the settings menu. Select 'Set WB'. You can choose between Auto, 3500K, 5000K (default value) and 6500K.



! For best results use the white balance only when you dive with lights on. For more information on how to use the white balance go to www.paralenz.com/support

6.4 DCC™ (DEPTH CONTROLLED COLOR CORRECTION)

6.4.1 What is DCC™?

DCC™ is an intelligent version of a color filter, which are normally made from plastic and placed in front of your camera lens, to remove the green or blue taint in your videos. It is controlled by the pressure sensor and adjusts the strength of the filter to match the depth you are at.

To change the DCC™ state, go to the WB/DCC™ screen in the settings menu. Hold to enter the WB/DCC™ menu. Hold the activation switch to activate the blue or green DCC setting.



The deeper you go the more colors will be absorbed. The camera cannot add colors that are not present, so beyond 20 meters de-activate the DCC™ and use a flashlight instead. For more information on DCC™ go to www.paralenz.com/support



6.4.2 Which DCC setting to use?

If the water is blue, we recommend you use **DCC: blue**. If the water is green, we recommend you use **DCC: green**.



The water is blue – use DCC: blue



The water is green – use DCC: green

Toggle either DCC™ or WB on/off by clicking three times on the activation switch while in power- or video-mode.



6.5 VIDEO SETTINGS

In video settings you can select resolution and frames per second.



6.5.1 Video resolution



6.5.2 Frames per second



! Notice that there are limits to how high the FPS can be at higher resolutions.

6.6 CUSTOM SETTINGS

The custom settings lets you control the following:



6.6.1 Custom video

You can change the video mode on the camera. If you want to record for a longer time, select 1080P as the normal video mode, but if there's something you want to record in 4K, you can assign it to the custom mode.

To activate this mode just select the 'activate-screen' and hold to assign it to the custom mode. The settings in custom video are the same as in normal video.



6.6.2 Slow motion

To activate slow motion mode, select the 'activate-screen' and hold to assign it to the custom mode. In settings you can change the resolution and frames per second.



6.6.3 Time-lapse

To activate time-lapse mode just select the 'activate-screen' and hold to assign it to the custom mode. In settings you can select your resolution and time interval between the pictures taken.



6.6.4 Photo burst

To activate photo burst mode select the 'activate-screen' and hold to assign it to the custom mode. In settings you can select how many images are taken per amount of time.



6.6.5 Visual overlay

The visual overlay embeds depth and temperature to your videos or your photos. To activate visual overlay select 'overlay' in the main settings menu. Here you can turn the visual overlay on and off. Note that a visual overlay cannot be removed after being embedded in a media file.



Example of visual overlay embedded

6.7 ADVANCED SETTINGS

The advanced settings allows you to 1) format the SD-card 2) see which firmware is on the camera 3) reset settings on the camera 4) flip the display and 5) choose units.



6.7.1 Format micro SD-card

If 'format' is selected, you must confirm that you want to format the micro SD-card.



! Reformatting the SD-card will delete all data, so make sure to save the footage you want to keep on your computer before reformatting the card.

6.7.2 Which version of firmware is installed on the camera?

If 'firmwr' (firmware) is selected, the version number will be shown for a short period of time.



6.7.3 Reset settings on the camera

If 'reset' is selected, you must confirm that you want to reset the settings on the camera to factory defaults.



6.7.4 Flip display

If you're mounting the camera upside down, this function allows you to flip the OLED display and the image.



6.7.5 Choose units

This function allows you to choose which units of measure to display.



6.7.6 Zero depth

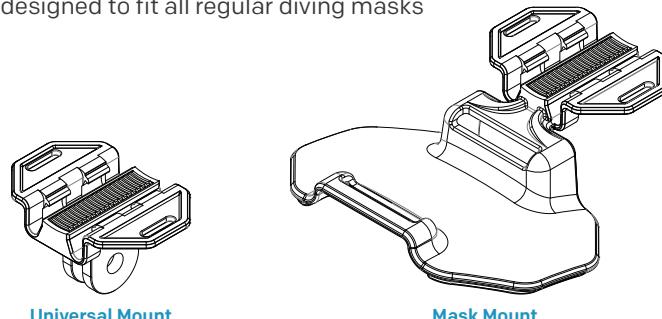
The Zero depth function lets you calibrate the depth sensor inside your Paralenz Dive Camera to zero. You can use this function if you should experience that the sensor is slightly off in your dive logs and the corresponding media.



7. MOUNTS

7.1 INCLUDED MOUNTS

There are two mounts in the box; The Universal Mount and the Mask Mount. The Universal Mount enables you to use most of the existing accessories on the market. The Mask Mount is designed to fit all regular diving masks

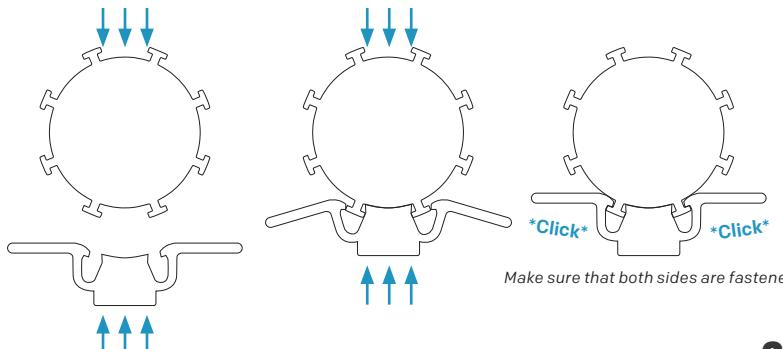


Universal Mount

Mask Mount

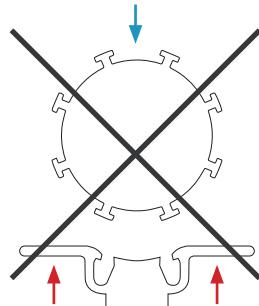
7.2 THE T-RAIL CLICK SYSTEM

Press the center of the mount and the top of the camera together to fasten the camera to the mount. Make sure both latches are fastened correctly. Do not use excessive force.



Make sure that both sides are fastened

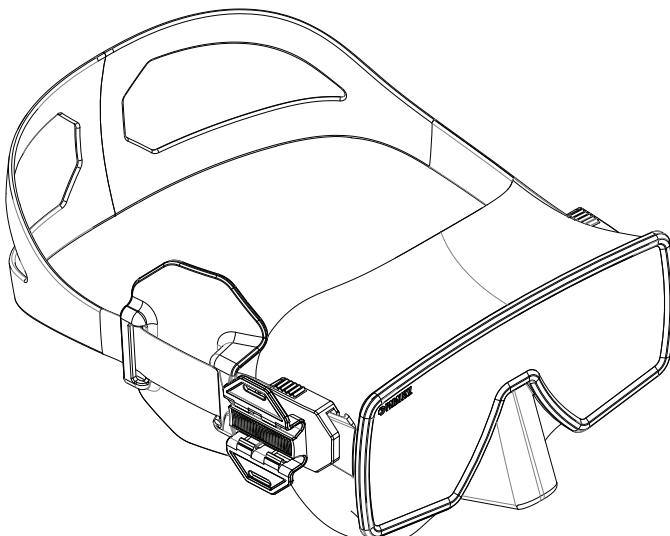
8. MAINTENANCE



**Do not push up on the latch releases.
If you do, the camera will not be attached
correctly.**

7.3 THE MASK MOUNT

Put the mask strap through the slots of the Mask Mount.
The Mask Mount can be used on either side of your mask.



8.1 CLEANING THE CAMERA

8.1.1 Cleaning the O-rings

Always clean the camera in fresh water after use. Check that the O-rings have not been stretched and that they do not have any cuts or tears. To lubricate the O-rings apply grease that does not contain silicone and run them through your fingers while gently rubbing the grease into the O-ring (do not use spray lubricant or petroleum based grease).

8.1.2 How do I prevent the camera from flooding?

The triple O-rings are tested to 200 m/656 ft./21 ATM., so as long as you properly maintain the O-rings and don't open the camera below water you are fine. Remember to screw on the end cap correctly.

8.1.3 Cleaning the switches

If sand grains get stuck underneath the magnetic switches, you can easily remove the switches with a small Allen key, rinse in fresh water, and put them back on. Go to paralenz.com for more info.

8.1.4 Cleaning the lens

To clean the lens, wipe it with a soft, lint-free cloth. You can use Eyeglass Cleaning Fluid – but do not use strong solvents such as benzene or alcohol.

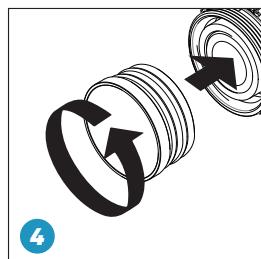
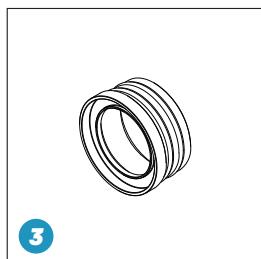
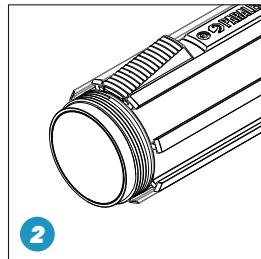
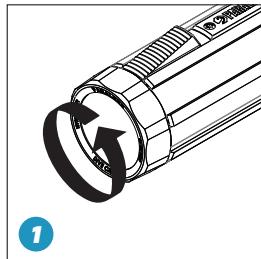
8.2 TRANSPORTING THE CAMERA

Use the supplied protection pouch when transporting your Paralenz Dive Camera. There is also room for cables, SD-cards and silicone grease for the O-rings in the pouch.

9. REPLACING PARTS

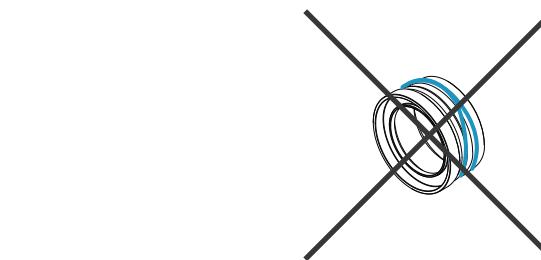
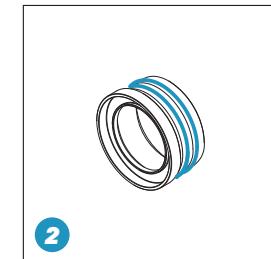
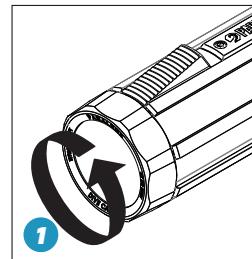
9.1 REPLACING THE LENS

If the lens is damaged you can buy a Paralenz Lens Kit. To replace the lens: 1) Unscrew the lens lock ring by rotating it counter clockwise. 2) Loosen the front lens with your fingers. 3) Apply grease that does not contain silicone around the O-rings on the new lens. 4) Insert the new lens while rotating slightly.



9.2 REPLACING THE O-RINGS ON THE LENS

If the O-rings are damaged you can replace them: 1)Unscrew the lens lock ring. 2) Replace the O-ring with the extra O-ring that came with your camera. Remember to apply grease that does not contain silicone.



Make sure that the O-rings are aligned and lubricated. If they are misplaced or dried out the camera will be flooded.

9.3 OTHER SPARE PARTS

For other spare parts please contact support@paralenz.com

10. DOWNLOAD CONTENT

10.1 THE PARALENZDIVE APP

The free **ParalenzDive** App makes downloading, sharing and viewing your photos and recordings easy. Download the app via App Store/Google Play. The app will guide you through the connection process.

10.2 MICRO SD-CARD

You can also transfer your data from your micro SD-card by inserting the card into a card reader. See **section 2.3** for information on how to remove the micro SD-card.

10.3 USB CABLE

By connecting your camera to a computer via the USB-C cable, you can access the content on the camera. Choose 'data' when connecting to the computer.

Use USB for
• Data
Charging

10.4 VIEW YOUR CONTENT

For viewing your video content, use programs such as Windows Media Player, VLC Player, Quicktime etc.

11. SOFTWARE UPDATES

11.1 CAMERA FIRMWARE UPDATES

Firmware updates are made through the **ParalenzDive** App. The app will give a notification when a new update is available.

Download the app via App Store/Google Play.

You can also download all firmware updates on www.paralenz.com/support. To install the firmware manually follow these steps:

1. Delete any file named "firmware.bin" in the folder you choose to download to.
2. Download the latest firmware for your camera on this page.
3. Copy the file firmware.bin onto the root of an empty SD-card (Not in a folder).
4. Make sure the battery has at least 70% power left. This is essential. You risk breaking your camera if this is not followed. Unplug the camera from the charger before checking the power percentage.
5. Turn off the camera. Insert the SD-card into the slot.
6. Turn the camera on until you see the logo and wait for it to turn off automatically. (The camera is now downloading the new firmware).
7. Turn the camera on again and wait for it to turn off automatically (The camera is now installing the firmware).
8. The camera is now ready to be turned on, with the new firmware installed.

12. BATTERY

The Paralenz Dive Camera comes with an integrated LiPo 1600 mAh battery.

12.1 CHARGING THE BATTERY

Use the included USB-C cable for charging. Charge the camera through your computer or use a wallcharger – preferably a 2.1 A USB power adapter. See [section 2.4](#) for information about how to charge the battery.

WARNING: Do not use the camera or the battery if it has been damaged – for example, if cracked or punctured. Disassembling or puncturing the battery can cause an explosion or fire.

⚠ Do not store the camera where prolonged exposure to extreme temperatures can occur, because it can cause permanent damage. Do not dry the camera or battery with an external heat source such as a microwave oven or hair dryer. Do not store your battery with metal objects. If the battery terminals come in contact with metal objects, the battery may "shortout" and cause a fire.

13. TROUBLESHOOTING

13.1 What to do if the camera should freeze or won't turn on

In case of the camera freezing and not responding, you can always do a hard-reset:

1. Turn the selector ring to power position. 
2. Plug in the charger.
3. Hold the activation switch for 10 seconds.
- The camera will now reboot.

13.2 If the SD-card needs to be reformatted

When formatting the memory card on a PC/MAC it needs to be reformatted with the FAT32 format (32kb) for up to 32 GB and ex-FAT for 64 GB cards.

The SD-card can also be reformatted through the camera. See [section 6.7.1](#) for information on how to format.

⚠ Reformatting the SD-card will delete all data, so make sure to save the footage you want to keep on your computer before reformatting the card.

14. REGULATORY INFO



CE mark indicates that this product complies with the European requirements for safety, health, environment and customer protection.



This symbol indicates separate collection of waste batteries in the EU countries. Please do not throw the batteries into domestic refuse. Please use the return and collection systems available in your country for the disposal of waste batteries.



The RCM is the compliance mark for all applicable Australian Communications and Media Authority (ACMA) regulatory arrangements, including all technical and record-keeping requirements.



The Bluetooth® word mark and logos are registered trademarks owned by Bluetooth SIG, Inc. and any use of such marks by Paralenz is under license.



The Wi-Fi CERTIFIED logo is a registered trademark of the Wi-Fi Alliance.



iOS and App Store are registered trademarks of Apple Inc.



Android and Google Play are registered trademarks of Google Inc.

FCC

a. This device complies with Part 15 of 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.

b. Warning: Changes or modifications to this unit not expressly approved by the part responsible for compliance could void the user's authority to operate the equipment.

c. NOTE: 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.

d. This device is also designed to meet the requirements for exposure to radio waves established by the Federal Communications Commission (USA). The SAR limit adopted by the USA is 1.6 W/kg averaged over one gram of tissue. The highest SAR value reported to the FCC for this device type complies with this limit.

IC

a. This device complies with CAN ICES-3 (B)/NMB-3(B).

This device complies with Industry Canada licence-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

b. Cet appareil est conforme à la norme CAN ICES-3 (B)/NMB-3 (B).

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. Son fonctionnement est soumis aux conditions suivantes : (1) l'appareil ne doit pas causer d'interférence et (2) l'appareil doit accepter toute interférence, y compris une interférence pouvant entraîner un fonctionnement non désiré.

The frequency band(s) in which the radio equipment operates; maximum radio-frequency power transmitted in the frequency band(s) in which the radio equipment operates.

2.4 GHz Wi-Fi

2402-2480 MHz for BT

Maximum radio power: <20 dBm for 2.4 GHz Wi-Fi, <10 dBm for BT

15. SUPPORT

Paralenz is dedicated to providing the best possible service. To reach our Customer Support, visit paralenz.com/support or contact support@paralenz.com

16. SPECIFICATIONS

Waterproof to	200 M/556 FT./21 ATM.
Video resolution	4k-30 fps / 1080p-100 fps / 720p-240 fps
Still resolution	8 MP
White balance	Auto, 3500K, 5000K, 6500K + DCC™ (switch between WB and DCC™)
Battery life	LiPo – 1600 mAh / 3+ hours recording (1080 p – 30 fps)
EIS - Electronic image and tilt stabilization	Will be available soon through firmware update
App	Viewing / Sharing / Settings (iOS & Android)
Usable with gloves	Yes
Shockproof	Yes
Lens / lens distortion correction	140° / lens distortion correction will soon be available through firmware update
Weight	155 g (5.5 oz)
Dimensions	116 x 35 x 38 mm (4.5 x 1.4 x 1.5")
Housing	Military grade aluminum & polycarbonate
Audio recording	Yes (internal microphone)
Port	USB-C (for fast charging)
Storage	128 GB micro SD-card max. (Class: U3 or V30) – not included
Mounts	Mask Mount & Universal Mount included
Dive log video overlay	Yes
Connectivity	WiFi, Bluetooth & USB
Display	0.5" OLED
Operating temperature	-20°C to 85°C / -4°F to 185°F / EVA padding (minimizing battery discharge in cold water)
Extra casing needed	No
Sensors	Pressure / temperature

17. PRECAUTIONS

To avoid malfunction, explosion, or fire:

Do not microwave, open, drop, puncture, take apart, bend, crush, paint, or incinerate the camera.

Do not solder or glue parts onto the camera and do not insert foreign objects into any openings, such as the Micro USB port.

Do not use the camera if it is damaged, this includes a puncture, missing O-ring, or water inside and do not attempt to remove or change the battery.

Do not dry the camera in an oven, with a hairdryer or any other external heat source, especially open fire.

Do not use the Paralenz Dive Camera for dives deeper than 200M/556F/21 ATM.

When opening and charging the camera, make sure that your hands are not wet, and that water from other sources cannot enter the camera or charger. This may cause electrical shock.

The Paralenz Dive Camera should not in any way be used as a dive computer, or as a supplement to a dive computer.

When charging, make sure the charger is a USB type charger, of max 5V, or use a USB plug on a computer.

If the front lens on the Paralenz Dive Camera should break, take care to avoid injury. Keep out of reach of children.

18. WARRANTY

The warranty covers all manufacturing defects and faults in design. During the warranty period, Paralenz will replace any defective units with a new or refurbished unit at our discretion.

The warranty does not cover depletion of the battery or results from normal wear and tear. It also does not cover unauthorized repairs, negligence, improper use or accidents.

The warranty period begins from the date of purchase.

The warranty does not cover commercial or rental use.

In case you experience any fault with the Paralenz Dive Camera in the warranty period, please go to **www.paralenz.com/support** and fill in a warranty claim, to start the replacement process.

For further information on how the warranty applies to your country please visit **www.paralenz.com/support**.

FCC ID: 2AL8V-PDC1A
IC: 22808-PDC1A
Applicant:
Paralenz Group ApS.
Refshalevej 163a ST.MF, Copenhagen K, 1432 Denmark

For more information, visit

WWW.PARALENZ.COM