There are many sizes of O-rings. Make sure you use the correct one!

Text and photos by Kate Jonker

The lack of proper O-ring care and preparation are two of the main causes of camera housing leaks. Underwater photo pro and photography instructor Kate Jonker offers advice and tips to help avoid these problems, keeping your housing (and hence, your camera) in good shape.

When you prepare your camera housing for diving, follow these important steps to minimise the dreaded housing leak!

Step 1: Prepare your housing, unhurried, in a well-lit area, where you will not be disturbed.

Clean the O-ring
Step 2: First, you should remove the O-ring from the door of the housing,

15 Steps to a
Leak-Free Housing

using the O-ring remover provided with your housing. Don't pinch it with anything sharp that may damage it.

Step 3: After that, you need to check the O-ring for stray hairs, fluff or sand. These little things can damage your O-ring and prevent it from sealing your housing properly. Do not hold the O-ring under a warm light to check it, this can heat the O-ring up and cause it to stretch.

Step 4: You should then check the O-ring for tears, cuts or damage. Do not use the O-ring if it is damaged in any way. Replace it with a new

photo&video

Prepare your housing in a quiet area with good lighting (right); Some housings have double O-rings in their doors (below); Clean the O-ring groove with an earbud covered with a lint-free cloth or tissue (bottom left); Make sure you use the correct O-ring grease and a proper O-ring remover (bottom right).

O-ring specifically made for that part of your housing as not all O-rings are of the same size or diameter. This means that if you use the wrong O-ring, your housing will not seal!

lens-cleaning tissue. You can also use a small, clean, fluff-free make-up sponge instead.

Place the O-ring back in the housing

Step 5: Next, you must apply O-ring grease to the O-ring. It is best if you use the one supplied with your housing. To do this, take a small, rice-sized blob and dot it around the O-ring. Do not apply too much as this can make the O-ring swell! Gently run the O-ring between your forefinger and thumb to ensure it is evenly coated. Do not pull or stretch the O-ring when you do this!

Step 6: Once the O-ring is clean and evenly coated, you can put it into its groove.
However, before putting the O-ring back, you should clean the groove with a clean earbud covered with lint-free cloth or

Step 7: Double-check the groove for stray hairs, fluff or sand that might have found their way there after you cleaned it. Double-check the O-ring and place it into the groove.

Step 8: It is important to remember that you should not stretch or twist the O-ring when putting it back. Rather, gently roll it in slowly and make sure it is not twisted. With that in mind, if it is twisted, you can use the O-ring remover to pull it up slightly so that it can untwist itself.

Step 9: When you are happy that the O-ring is in place, give it a final once-over to check that no sand,

dust or hair has magicked its way back onto the O-ring.

Step 10: You can then place your camera into the housing and check that it is properly lined up in the housing. After that, close the housing and lock the door. As you gently close the door, check that nothing is trapped between the O-ring and the housing / door. Common culprits include housing straps and desiccant packets.

Do the necessary checks

Step 11: After that, you must check that the housing is properly locked. You should also check that the O-ring has not popped out and is

trapped between the door and the housing.

Step 12: If you use sync cords for your strobes, double-check that you have screwed them in securely.
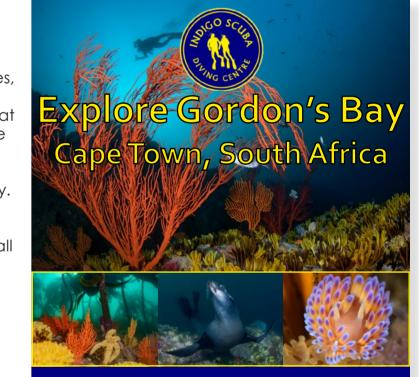
Step 13: Test that all camera buttons are aligned with the housing buttons, that the zoom or focus gear is working and that your strobes fire at the proper time.

Step 14: If your housing comes with a vacuum pump, pull the vacuum, and then press all the buttons, turn all the knobs, and

photo&video

Prepare your camera carefully for a stress-free dive.

press the levers. This is to make sure all the O-rings on the buttons and levers are sealing correctly. If your vacuum stays intact for around 20 minutes, you are ready to hit the water!

It is important to remember you would need to repeat these steps every time you open your housing!

When not using your housing
Step 15: When you are not using the camera for a while, remember to remove it from the housing, clean it and give it a bit of O-ring grease.

Additionally, place it inside a clean Ziploc bag and keep it inside your housing. You should ideally store it somewhere safe, cool and dry.

Bonus tip
For mirrorless or DSLR users: If you want to change the port, you need to repeat Steps 2 to 9 with the O-ring of the port whenever you change it! Also, if your housing door or port has two O-rings, remove, check, clean and replace them one at a time so that they are returned to the right groove.

Follow these 15 steps to a leak-free underwater housing to take your camera underwater without stressing about it getting wet! ■
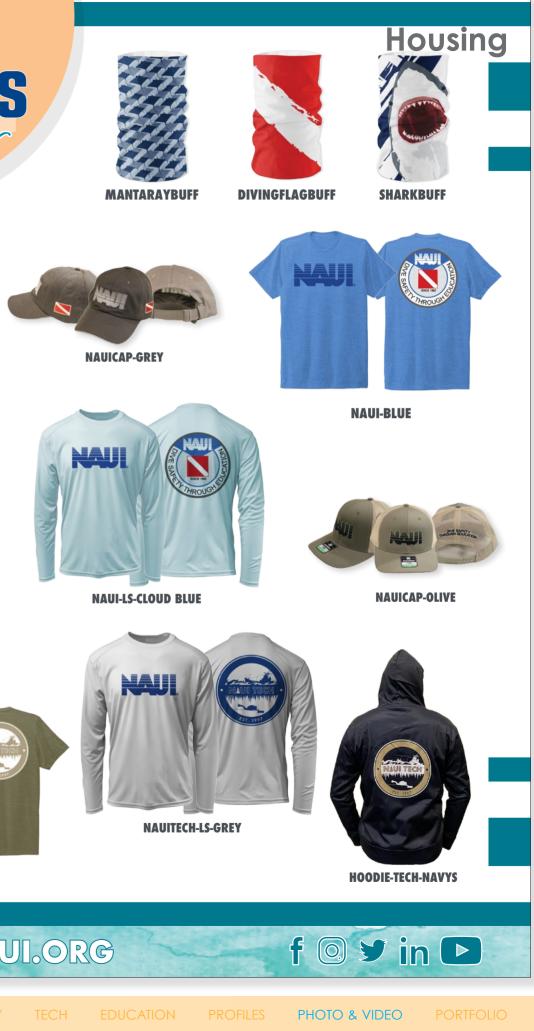
*Kate Jonker is an underwater photographer and dive writer, underwater photography instructor, dive guide and dive boat skipper based in South Africa who leads dive trips across the globe. For more information regarding diving and underwater photography in Cape Town, divers are welcome to find her at: **katejonker.com**.*

GoPro HERO11 Black and HERO11 Black Mini

The HERO11 Black and the new HERO11 Black Mini are the new action-cam flagships of GoPro. The most interesting feature appears to be the new sensor, which is capable of capturing 5.3K/60p 10-bit video. This counts for both models. The Black Mini is smaller in size and lacks front and rear screens but offers the same new powerful sensor that features 27MP of resolution, with a sort of unusual aspect ratio of 8:7. However, this aspect ratio can be cropped in-camera to match ideal aspect ratio requirements of Instagram, TikTok and other social media platforms. Considering the improvement from the former 23 MP resolution to the current 27MP resolution, in-camera cropping would still leave sufficient image material to work with, not just on TikTok. The newest version of HyperSmooth (GoPro's own image stabilization software) and the company's Enduro battery are included as standard. The HERO11 Black is compatible with all accessories that were offered with its predecessor. **gopro.com**

Paralenz Vaquita 2nd Gen

The new features included in the 2nd Gen Vaquita comprise an updated Auto-DCC, which stands for Automatic Depth-Controlled Color Correction, that colour corrects footage recorded in blue or green water and adjusts it to be more natural looking. It is also equipped with a new ultra-wide 150° lens, and a newly added integrated GPS sensor, Depth and Temperature Dive Log, which makes it possible for divers to share their dive footage as pins on TheOceanBase interactive map available in the Paralenz App. Waterproof down to 350m (1150ft) without extra housing. All camera settings are fully adjustable underwater. **Paralenz.com**

SanDisk Professional Pro-G40 Rugged SSD

In case you worry about clumsy moments, or you just want to make sure your data and images are safely stored (while in the jungle or desert), the new Pro-G40 rugged SSD by Western Digital could be worth a look. According to the manufacturer, the SanDisk Professional Pro-G40 is the company's most rugged SSD to date, including IP68 standard dust- and water-resistance rating, 3m (9.8ft) drop resistance, and up to 1,800kg (4,000lb) crush resistance. In short, you can throw it from your balcony, allow a small elephant to step on it, and then take it for a dive in the pool in order to clean it up. The SSD offers a dual-mode USB-C port supporting Thunderbolt 3 (40Gbps) as well as USB 3.2 Gen 2 (10Gbps) connections. Read speed goes up to 2700MB/s and write speeds up to 1900MB/s when connected via Thunderbolt 3. The SanDisk Professional Pro-G40 SSD is available in two versions: 1TB and 2TB storage capacities. **westerndigital.com**

Seacam housing for Leica SL2/SL2-S

Owning a Leica is not just about owning a quality camera, it is living a philosophy only Leica fans can understand. Whilst the high quality is unquestionable, the investment of buying a Leica truly makes keen underwater photographers think twice about how to keep their "baby" safe. Seacam is taking care of such concerns. The Seacam SL2/SL2-S housing is made from a saltwater-proof light metal alloy, which is double-hardened and anodized. The two housing shells (main housing and backplate) are secured with a titanium fastening system. As expected, the housing provides full control over all of the camera functions. The housing can be configured with S6 or N5 bulkheads for strobe cables, with the option of adding an HDMI bulkhead and a vacuum system. Seacam's own leak detector comes standard. As with other Seacam housings it is depth-rated to 80m (260ft), with the option of customisation for operation in deeper waters upon request. **seacam.com**

AOI UCL-09PRO and UCL-90PRO close-up lenses

In order to shoot proper images of the tiniest critters, even a good macro lens can easily reach its limits. When it comes to serious magnification, a close-up lens can deliver. Standard values are usually +5 and +10 diopters, sometimes with the option to stack several close-up lenses. The UCL-90PRO and the UCL-09PRO by AOI are depth-rated to 60m (200ft) and provide a magnification of +18.5 diopters (UCL-90PRO) or +12.5 diopters (UCL-09PRO). Standard 67mm threads allow the lenses to be mounted to most housings, including the new AOI housing for the OM System OM-1. Each lens comes with a pouch as well as front and rear lens caps. **aoi-uw.com**