

Care and Maintenance Cameras and Accessories

There I was - snorkelling in not much more than knee-deep water in a lagoon nestled in the heart of the Australian Coral Sea. White tip reef sharks surrounded me gnashing and munching away at a school of mullet type fish they'd herded up in to the shallows for a quick breakfast. I'd just bought a brand spanking new Nikonos II only a couple of weeks before and there I was with my flash new gadget clicking away at an utterly amazing event. National Geographic entries with every shot I was taking.

Except that I'd had it on rewind all the time. What a dickhead. That was 35 years ago with a lifetime of other lessons to learn in front of me but I still wince at those lost shots I had in my frame. It could have been worse; I could have flooded my camera, but there was no doubt that

robust not just to offer the chance of helping to produce better shots but also to cope with the sometimes sloppy care dished out by less than diligent owners.

Being familiar with how to push the right buttons, get correct exposures and framing the shot properly is certainly an art form perfected by some underwater photographers that I'm equally admiring and jealous. I can't help it. Some of those award winning photos produced by such as Grace, Halstead, Thompson, Torckler and Westerskov make me shake my head when I look at the best of mine. But I'm sure we'll all be in agreement with one thing; lack of immediate attention before and after a dive can end up being quite expensive and unnecessary.

Fortunately, learning to care properly for cameras and their accessories is not as hard as producing those brilliant pictures but it is what helps you to keep taking them!



*How things have changed:
Calypto/Housing adapted for
various lenses/Digital*

a great opportunity had been missed through inadequate pre-dive preparation.

Lesson learned. But there is probably no doubt that of all the dive gear that a recreational diver takes with them underwater, the camera may have the biggest price tag and its operation, care and maintenance deserves a little more concern than just charging batteries before the dive and a passing rinse in a bucket at the end of it.

Cameras have certainly come a long way since they were first made commercially available. Compared to earlier models of most equipment, later versions are now more often than not made more



Start off by following the manufacturer's recommendations and prepare yourself with a good fix-it kit including a decent set of batteries and where possible, a good recharging unit. Then go the extra mile and get a robust container that will protect your camera from bumps and bangs. An appropriately sized Pelican case is perfect for the job.

A good fix-it kit should also have in it at least the following items: spare o-rings, toothbrush, micro-fibre cloth, silica gel packs, silicon grease and if travelling, an international traveller's plug for recharging and downloading your daily photo shoot.



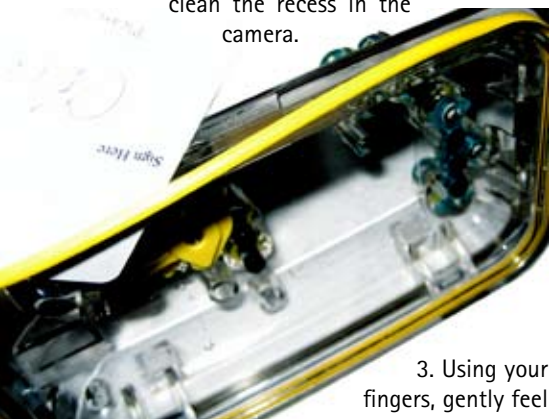
*Spare parts kits: micro-fibre cloth,
cue-tips, silica gel packs, clear-vue
spray and silicon grease.*

Diligence with preparation is paramount

With these items at the ready, the following tips may help to keep those pictures rolling in:

Getting ready for the dive

1. Charge the batteries (and at least a spare one!)
2. O-rings are the common seal used and must be properly inspected by removing from their recess using either your fingers or something like a credit card that isn't likely to damage either the o-ring or the casing. Use your toothbrush first to clean the recess in the camera.



3. Using your fingers, gently feel all the way around the o-ring to 'see' if there is any grit or hair that needs removing. Use the micro-fibre cloth to then finally clean both the o-ring and its recess.

4. Put only a small amount of silicon grease on the o-ring and lubricate thoroughly.
5. Insert the o-ring and finally inspect again for any dust particles or hair that might break the seal.
6. Place a small silica gel pack in an appropriate place in the housing that won't interfere with camera operation. This will help in absorbing any unwanted moisture.



Extendable lead and wrist lanyards

7. Close the case and do a leak test by placing in a sink or bucket with the lens facing down. If there is any small leak it won't then soak the camera body. Then you're in real trouble!

During the dive

1. Have someone pass the camera down to you and immediately either attach to your BCD preferably using an extendable lanyard or use a wristband.
2. During those first couple of metres descent, check for bubbles and/or any other evidence of leakage. If there are continuous bubbles or you see any water accumulating inside the housing, get the camera out of the water as soon as possible.
3. Pass up to someone on board but when possible and/or practical, don't disattach until they are holding the camera.

After the dive

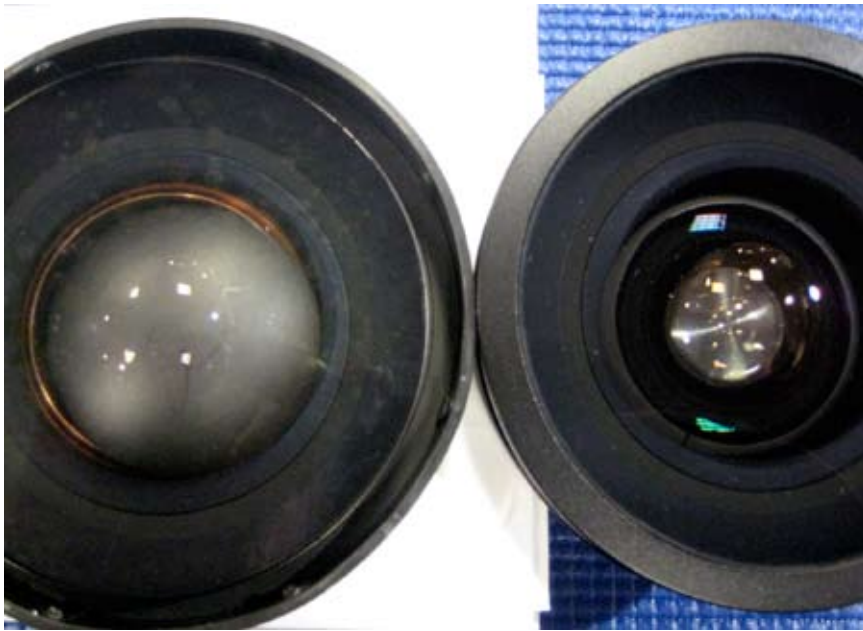
1. Rinse the camera in a bucket or other container of fresh water. Sometimes it pays to take your own bucket as you may find your camera's making rough friends with others in there as well. Also, you may find that the freshwater isn't so fresh and contains a mixture of a cleaning fluid put in by well meaning boat staff and salt water introduced from those other cameras. This doesn't help at all and can give a false impression of having rinsed your camera well.
2. When rinsing in [what you've now made sure is] fresh water, press all the buttons to ensure that any salty water is flushed away from the button recesses.
3. Dry with a towel before putting in your carrying case or wet bag.

The poor condition of the platform (below) is the result of inadequate post-dive cleaning.



Leak test is better done here than after starting your dive.





above: Check out the mottling on the wide-angle lens compared to its better maintained sibling on the right. Currently that's about a \$250 repair job.



A wet bag is ideal for dive site to land base and helps in preventing excess moisture in camera carrying case.

Make sure that all lens covers are put in place for further protection after drying.

4. Ideally, have a wet bag as well as a dry case. A housing usually takes up to two weeks to dry and you should carry the housing in the wet bag until somewhere back on land where you can dry the case thoroughly, and store in your protective case with moisture absorbing silica gel packs.

A couple of other useful tips

1. Rechargeable batteries are more expensive than disposable batteries but are more convenient and less wasteful. However, there are differences between the rechargeables that you can purchase; the capacity of nickel hydride batteries can be diminished because of their inherent 'memory'. If you recharge the batteries several times without completely draining their charge, they'll learn that half-full might mean completely full. To avoid this problem, discharge them completely before any recharge. A good way to do this is to place the batteries in a standard, cheap torch, turn it on and leave until the batteries are completely discharged. On the other hand, this memory problem does not affect lithium ion batteries. They can be recharged from any state of discharge.

2. If you're travelling always transport the camera housing slightly ajar so that cabin pressure doesn't exert continuous undue pressure on the unit.

3. Make sure you have an international traveller's plug and possibly transformers for countries that have different wall sockets and electrical supplies.

4. With such an expensive piece of equipment, don't stint on good quality cases, bags and fix-it kits.

5. Take a course on underwater photography. Make sure it's run by a professional underwater photographer and/or ...

6. Make friends with an expert in underwater photography and pick their brains! Mine is Chris Finch-Mitchell from Digital Diver in Cairns and his advice (including editing this!) is second to none.

Tips from the experts are probably the cream on the cake of our accumulated knowledge. I guess I can look back and excuse many of my early mistakes in underwater photography from being isolated and with no-one close by to talk to. Today, there's just simply no excuse to be properly prepared and able to concentrate on producing those brilliant shots. So next time you see a bunch of sharks having breakfast, you should be able to jump into your speedos, grab your camera (and know that it's all prepared and ready to go) jump in and get that underwater 'Photo of the Year'



Flooded Camera - Oops!

1. Turn off the power, strobe and remove batteries.
2. Keep the housing and/or camera tilted in a manner so as to prevent as little flood damage as possible. If possible!
3. Rinse before opening up.
4. If using film, remove without unwinding.
5. If completely flooded, get that bucket, fill it with fresh water and submerge and keep your camera there until you can get to a professional repair source. The advice on this is varied but the odds are that the camera's electronics may be beyond repair in any case but there is reasonably unanimous consensus that all digital cameras **flooded in salt water** are unreparable.
6. Good luck.

Remember, diligence with preparation is paramount.



Ni-H and Lithium ion battery chargers.

