

Handy hints - Condensation

by Peter Rowlands

In tropical climates we all like air-conditioning to keep us cool indoors – either on land or on liveaboards – especially at night, but this luxury can bring potential problems with underwater camera equipment.

The camera housings in the photo were loaded and prepared in an air-conditioned room and then left there for a while. During this time they cooled down to the ambient temperature. Unfortunately when they were taken outside the higher ambient temperature caused the surfaces on the housings to condense and form moisture on the outside of the glass dome ports.

The moisture will remain until the housings warm up and this will almost certainly disappear when they are taken underwater so it is not really a major problem.

The big problem which can occur is if you needed to open the housing for some reason. The result would be this moisture forming on the camera and lens and the inside of the housing. This is obviously not a good thing but

if it happens all you can do is wait for the equipment to warm up or, better still, only open the housing back in the air-conditioned room.

To avoid the condensation happening at all prepare your camera in the open air or in a non air-conditioned room. Many liveaboards only put the air-con on at night so preparing your housing in the saloon during the day wouldn't be a problem.

In colder climates there can be a reverse problem with condensation. If the housing is prepared in a warm, cosy room, the sudden drop in temperature as you enter cold water will cause the warm air inside the housing to condense and form moisture inside the glass port. This is not good news and it will take some time for the air to cool down to the ambient temperature. Even when it has done so, the dried moisture can leave marks on the inside of the dome which could affect picture quality. The solution is to prepare the camera in a temperature as close to that in which you will be using the housing.

The above problems are not



limited just to underwater housings and can occur with smaller cameras as well.

Another form of condensation is a comparatively recent phenomenon with compact digital cameras. If you are using the built-in flash during the dive this generates heat inside the housing which can cause moisture to form on the inside of the front glass port. A solution is to put a small bag of silica gel inside the housing to absorb the moisture but I have found that with my Olympus C40 in an Olympus PT-012 housing this doesn't stop moisture forming after about 45 minutes or around 30-40 shots using the flash. It might be that my supply

of silica gel sachets need reforming in an oven for half an hour or that I should buy the sort that change colour when they need reforming!

Either way, condensation is a problem you should be aware of and prepare accordingly to avoid it happening.

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