



by the 3 volt CR2450 battery. This is a common battery that is easily located in most areas of the world. The electronic monitoring circuitry is built into the rear half of the Nauticam housing and connected to the LED warning light on the outside rear of the housing. When the housing is open or at an ambient pressure and the on/off switch is in the on position the LED will slowly blink with a blue light.

When a vacuum is achieved the LED will change to a solid green which indicates the system is sealed and ready to dive. If you have not properly assembled the housing system for any reason the vacuum will be lost and the LED will start to flash yellow. This is the first indication that a problem exists and that the housing should not go into the water until the problem has been resolved. This is the point at which any pilot error can be resolved by simply reassembling the system while looking for the source of the leak. This loss of vacuum should occur in plenty of time to avoid a flood and you should always check for the solid green light prior to entering the water. If you have entered the water and a loss of vacuum begins to occur it will be



detected and a change from green to flashing yellow LED may give you the needed time to get out of the water.

If water intrusion into the housing is detected the LED will flash in red and the audible alarm will start to sound. This is the last line of defense against a total flood and may still allow time to exit the water and salvage your equipment from loss. Most leaks through the small captured O-rings like the ones in the control buttons and dials are slow drips not the more catastrophic type of leak associated with main door and dome port O-rings.

Nauticam has a large selection of one way vacuum valves to meet most any need and these are all user installable. A spanner tool is included with every valve so no extra tools are required for installation. These valves are designed to support various housing configurations. The vacuum release is integrated into each valve so there is no need to install a pump or pressure gauge to release the vacuum and no tool is required to open the housing after the vacuum has been released. A simple knurled nut is all that needs to be turned to release the vacuum. Turn clockwise to seal and counter



clockwise to release.

The release nut sits under a threaded cap to protect it from damage and to provide a redundant seal for the vacuum valve. The valves are not only made in a verity of thread sizes but some are also have integrated electronic bulkheads so that you have both the vacuum valve and electronic bulkhead in one unit for hard wiring strobes, video monitors, remote triggers and more using the same installation opening in the housing. These valves are used for housings with single accessory holes or for multiple bulkhead installations.

The selected valve includes the small and light weight vacuum pump which has a rubber top that is pushed over the knurled nut and then pumped to create the vacuum. No gauge, tubes or other attachments are required making this a very simple and easy system to use. Just a few pumps and the



LED turns from the slow flashing blue to solid green indicated the housing is sealed and ready to use. A dual activation valve which accepts the low pressure BCD inflator hose quick disconnect is also available. This uses tank pressure to create a venturi effect to pull the vacuum. Be aware that not all BCD inflator hoses are the same size so check the size compatibility before ordering this valve.

Beginning with the release of the new Nauticam NA-70D housing for the Canon 70D and the new Nauticam NA-EM1 for the Olympus EM-1, all new DSLR and mirror less interchangeable lens camera housings will ship with the electronic monitoring circuitry installed as standard equipment. The vacuum valves are sold as optional equipment allowing the user to customize the accessory configuration as needed.

The vacuum valves start at \$220.00 USD and include the pump and installation tool.

Now with just a glance at the housing LED you can be assured that watertight integrity is being maintained. Like the cell phone I think that the Nauticam vacuum check system will be something we felt we could live without until you actually have one and see how much more secure you feel diving with it.

Retrofits for many existing Nauticam housings are available at your local authorized Nauticam dealer.

Phil Rudin

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Subal D7100

by Mark Webster

My workhorse camera for several years now has been the D300 in a Subal ND20 housing that was converted to accommodate the D300. It has been a fantastic camera which has never missed a beat and I was somewhat surprised to find that it has exposed nearly 54 thousand frames when I sold it!

Until now, like many other underwater photographers, I have been resisting the urge to migrate to a full frame camera on the expectation that Nikon would eventually produce the D400 which has been the subject of many long standing rumours. Well we are still waiting for that mythical beast, but early in 2013 Nikon did upgrade the D7000 to the D7100 which for me includes most of the features that I would have expected in the D400. OK, so it is not a designated pro body and therefore the body is smaller and the build is lighter than the D300 and certain features on the top plate controls are perhaps aimed more at the serious amateur user, but once it is in a housing then these differences evaporate for me.

The D7000 and D7100 at first glance look very similar, but there are subtle differences in the

dimensions and location of major controls so existing D7000 housings are not compatible. So having decided to proceed with this long awaited upgrade now I needed a housing for the beast!

Housing manufacturers have a tough time keeping pace with the market with so many upgrades and changes to existing models that quickly makes a housing design obsolete. Some manufacturers react more quickly than others, but having been a long term Subal user I was determined to wait until their offering hit the market. Subal were a few months behind some of the others and I briefly considered a Nauticam due to the port and viewfinder adaptors (for Subal), but, although these are very fine housings, the familiarity and my own experience of durability of the Subal helped me resist. There is a

The sTTL system copes very well with a fish eye lens at a stand off of say 60cm producing a near perfect foreground exposure with balanced back ground lighting. Nikon D7100, Subal D7100, 10-17mm FE zoom. Inon Z240 flash guns, ISO 400, f9 1/50.

