

Light & Motion Tetra 5000 housing review

By M. Westermeier

The ability to get instant feedback is just one of the many attractions of using digital cameras underwater. When coupled with being able to take hundreds of images on a single dive and image quality that is starting to rival film, underwater digital makes sense.

The Nikon Coolpix 5000 with its 5.0 megapixel effective CCD and 28-85mm zoom lens lends itself as an ideal digital camera for underwater use. And by expanding the basic camera with an auxiliary macro or wide-angle lens adapter this is one camera that can do it all from fish portraits, 1:1 macro, or dramatic wide-angle shots. When coupled with the Light and Motion Tetra 5000 underwater housing you have a system that is unbeatable for the versatility, price, ease of use and quality of images that you get.

The Light and Motion Tetra 5000 housing for the Nikon CP5000, which only started shipping in mid August this year, is a superb piece of engineering and craftsmanship. Constructed of black anodized cast aluminum and coated with a silver metallic powder it provides for virtually full camera control, double seals on the back plate and lens port, and is lightweight and undemanding to handle underwater. The buttons and controls are easy to use, very responsive, and located in virtually the same location as on the camera. Overall it is a compact, rugged, lightweight and easy to use housing.

The Tetra incorporates what Light and Motion terms the revolutionary **ROC** (Remote Optical Controller) strobe controller. The **ROC** enables the user to shoot using Digital TTL, Manual bracketing based on TTL feedback and full Manual with the ability to adjust in 12 half-stop increments with any TTL compatible strobe.

The unit I used had a Nikonos bulkhead installed, but a Wetlink bulkhead is also available as well as one for a Sea & Sea strobe. I also had the Light and Motion Wetmate lens installed and a macro lens for 1:1 imaging, which can be installed and removed while underwater. A Wetmate wide-angle lens is also available for this unit.



Assembly and Pool Testing:

The camera and housing went together very smoothly with clear and easy to understand assembly instructions provided by the owner's manual. The CP5000 camera rests snugly in the housing making it all but impossible to improperly install it. The "O" rings are easy to clean and install and the latching system on the back plate is both easy and foolproof to use.

My first test of the unit was in an outdoor pool, using a Nikon SB105 strobe for lighting and a wetmate macro lens for 1:1 reproduction. Within seconds I came upon a problem; because of the bright sunlight I could not see anything in the LCD viewfinder. The unit only provides the LCD screen as the viewfinder and it is all but impossible to see



in bright light. I adjusted the viewfinder for an optimum level so that I could see an image and noted that my eyes seemed to adjust better to the washed out image in a matter of a few minutes, which allowed me to start testing the unit. The viewfinder brightness is adjustable using the camera menu controls, which can be accomplished while underwater.

Using various objects such as plastic fish, camera parts etc.; I familiarized myself with the feel of the camera and its operating controls. As I came to trust the auto focus more and became familiar with the controls of the housing, the quality of the images improved dramatically. You can use manual focus, but you need to be able to clearly see the subject, in bright light conditions auto-focus is a much better approach. After testing the ROC in TTL, I determined that using the manual adjustment of the strobe was the only way to go. The ROC consistently overexposed the image in the TTL auto mode when shooting objects within 12 inches or so. However, by using the ROC in manual, and utilizing the digital camera feature of being able to instantly view your results, I was able to fine-tune the strobe output for perfect exposures in just a few minutes. I ended up taking a little over 500 pool images during a 2-day period and felt very comfortable with the camera finding that the fine adjustments allowed by the ROC are a real enhancement to getting perfect exposures.

Bonaire Ocean Trials:

Primarily due to its compact size and weight, I decided to pack the Tetra in my carry on bag while packing for a dive trip to Bonaire. This later proved to be a brilliant decision, as most all my other equipment did not make the flight connections. Having the Tetra with me I was in the water and taking pictures more than a day before the rest of my equipment arrived.

My first test of the Tetra was a shore dive and once I settled in at 20 feet I quickly found that my pool experiences were repeated, the sunlight so

overpowered the LCD, I could not see much detail through the viewfinder. As I moved to deeper water the situation greatly improved and as I spent more time underwater I became accustomed to the LCD screen in the shallower water. A simple flexible shade would dramatically help overcome this problem.

As in the pool the ROC overexposed the close shots when in auto TTL, so I opted for manual control of the SB105 strobe. This worked very well and allowed for very fine adjustments of the lighting. All the housing controls operated smoothly and precisely with hardly any noticeable difference than one would find without the housing. The pool practice really paid off and the transition to ocean diving was seamless.

The unit is compact enough that it was effortless hauling it around for shore dives and even more so on boat dives. It is very easy to compose with and shoot with only one hand on the housing. I found the housing especially enjoyable to use at a depth of 35 feet to around 90 feet. That depth range allowed enough light for the camera to quickly auto focus with a minimum of shutter lag and the sunlight was subdued enough that the viewfinder image was bright and easy to see. Because of the LCD viewfinder, I found at times it was easiest to hold the camera at arms length to get a picture. By holding the camera in that way the viewfinder is still easily seen and you can get closer to some animals than by holding the camera closer to your body.

Night Diving:

The perfect time for use of the Tetra system in shallow water is at twilight, the bright LCD viewfinder and soft lighting of the reef is magical, offering great control of all camera and strobe functions with a minimum of effort. However, once the sun actually sets and all becomes dark underwater so does the viewfinder! I used the Tetra modeling light (model 854.0051) and all it did was create a bright spot on the LCD screen, with a little effort I came up with a combination of flash lights that allowed me to see the complete scene in the viewfinder. The camera shutter lag, which had been a minor distraction during the day, became absolutely infuriating at night. However with use of a low power wide beam light both these problems can be quite easily overcome. The camera is sensitive enough that it really doesn't



need a huge amount of light to focus, but a narrow beam that doesn't illuminate the complete scene tends to confuse the camera and slow down the shutter response.

Summary:

During the next 4 days of use, I mastered the strobe settings under varying lighting conditions and became very adept at interpreting the LCD viewfinder, but shutter lag continued to be a persistent problem at times. It was offset somewhat with the ability to pan with a fish so that when the shutter did respond, you still got the shot, just a slightly different composition.

All in all I ended up taking the camera on 17 dives, which were a mixture of boat, shore, night, twilight and daytime dives, which ranged from 20 to 90 feet. Using a digital system does take some getting used to especially the viewfinder in bright light. However, once mastered it provides for consistent good quality images dive after dive. And since you can view the images while still underwater it is easy to make adjustments during the dive, insuring that you don't miss any photo opportunities.

The folks at Light and Motion have done an



excellent job of providing the photographer with an underwater interface for the Nikon Coolpix 5000 camera that is very easy and intuitive to use. The Tetra 5000 system offers an amazing versatility of lens ranges, lighting adjustments, and instant feedback to help you get that picture of a lifetime. In an instant you can go from shooting an anemone shrimp to capturing a whale shark, all with one camera setup.

Pricing:

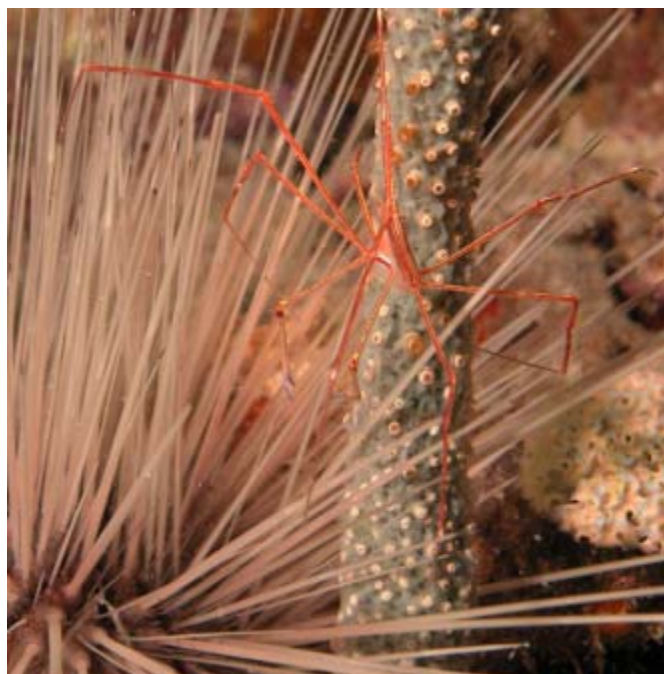
The Tetra 5000 basic housing has a retail price of \$1499.00; a Nikonos style bulkhead is an additional \$125 and the Sea & Sea Wetmate bulkhead is \$160.00. The housing can accommodate 2 strobe bulkheads, pricing stated is for one bulkhead. A spare housing "O" ring kit is \$20.00. Additional information and pricing may be found at the Light and Motion website <http://www.uwimaging.com>. Information on the Nikon Coolpix 5000 can be found at the Nikon website: [Http://www.nikonusa.com](http://www.nikonusa.com).

Technical Specifications:

Dimensions 6.0" l x 4.5" w x 5.2"d

Weight: 3lbs. 7 oz. - housing w/camera (dry)

Construction Pressure Hull: 356-T6 cast aluminum, Rear Plates: 6061-T6 machined aluminum, Hardware: 18-8 stainless steel and 316 stainless steel, Ports: Optic Glass, O-rings: Buna-70, Other: Various injection molded plastics,



Finish: Silver metallic powder coat over black anodize, **Rear Plate Attachment System:** Dual self-locking rotary latches

Seals, Rear plate: One radial bore seal, one face seal, **Rear Viewing Port:** Double bore seals, **Bayonet Optical Ports:** One radial bore seal, one face seal, **Buttons:** Dynamic bore seals, **Control knobs:** Dynamic bore seals

Depth Rating Designed for use to 300 ft. **Moisture Alarm** - Visual indicator from ROC panel is standard

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