YS-D3 Duo Review

by Shannon Moran

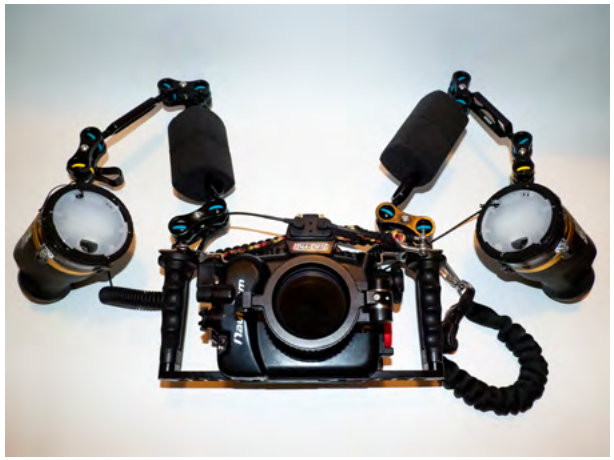
Since developing the world first mass-produced underwater strobe in 1972, Sea & Sea have been pioneers of the underwater imaging world.

As an OM System (formerly known as Olympus) camera user, I was very excited to see the new YS-D3 DUO for myself. The newly released DUO has almost exactly the same specifications as the D3 MKII with the added features of an RC mode and a newly designed light receiving sensor to improve DS-TTL dimming accuracy. This latest model introduces the new DS-TTL RC mode, exclusively for us OM users, designed to link with your camera body and provide accurate automatic strobe adjustment. This new mode isn't the only exciting new feature, with a guide number of 33 it certainly packs a punch and is one of the most powerful strobes currently on the market.

So what's in the box? One YS-D3 DUO light unit, a tube of silicone grease, the 'Soft Lighting' diffuser and a ball mount adapter, a YS mount adapter or diagonal ball base are also available. The ball mount adapter does come with two screws requiring a 3mm hex key to fit, which is not provided in the box.

My first thoughts as I unboxed these units was "wow, these look great". The design is sleek, a similar style and shape to previous models and once again made from a combination of polycarbonate and ABS resins, the matt black and gold trim along with the back-lit panel give these strobes a premium look and feel.

The units have 3 modes, DS-TTL (blue), RC (red) and Manual (yellow), Sea & Sea have stuck to their coloured lighting design on the DUO, changing as you switch between modes. Underwater you can clearly see the colour change on the back-lit panel, without having to lean across to see the dial itself. I found this colour change between modes incredibly useful in the water when switching from RC (red) to Manual (yellow), you instantly know if you are turning the mode dial or the light intensity dial. I expect this colour change may be difficult to see in a very bright environment, but here in the UK in October that wasn't a problem!



The designers seem to have thought about every aspect of the design, the adjustment dials are easy to operate with thick gloves, a back-lit panel to help distinguish between modes and see the settings during night dives, a target light with two intensity options along with two styles of diffusers which twist on quickly and have a reassuring click as they lock into place. If you decided to remove the diffuser mid dive, there's no worry about losing them as they come with a handy piece of cord which can be tied between the diffuser and strobe. I have lost quite a few diffusers when

Manual mode

RC mode

TTL mode

removing and accidentally dropping them mid-water, this is a simple yet effective solution.

Sea & Sea recommend using their fibre optic cables for the best performance, particularly when using the TTL and RC modes. Like many strobe units the DUO uses 4x AA batteries, it is recommended to use either the 1.5V alkaline AA or 1.2V Ni-MH AA batteries. During the tests I was using Eneloop Pro AA batteries and after an hour in the water the batteries were still performing well and didn't lack power. The use of non-recommended batteries risks battery leakage and overheating, best to avoid this.

Lets take a look at the light output, the DUO uses two light-emitting tubes with an aspherical toroidal lens mounted in front of the flash tubes to provide uniform and even lighting with no hotspots. The unit also features a LED target light, with two power settings choose between at either 300 lumens or 150 lumens depending on the situation and remaining battery power.

There are two types of diffuser available for this light unit, a soft light diffuser which is included with the strobe, and a dome diffuser which needs to be purchased separately. Both diffusers reduce the power output and produce a slightly warmer light than the flash unit alone.

• No diffuser, GN 33, beam angle of 105°, colour temperature 5800K
• Soft light diffuser, GN 28, beam angle of 110°, colour temperature 5500K
• Dome diffuser, beam angle of 170°, GN reduced by approx. -1.5 EV

In both TTL and RC mode EV can be adjusted by +/- 2.0 and in manual mode the light intensity can be adjusted in 11 steps, GN: 1 / 1.4 / 2 / 2.8 / 4 / 5.6 / 8 / 11 / 16 / 22 / 33.

I often find at the end of a dive when my hands are cold and a little stiff, at this point twisting small dials on the strobes can be quite challenging, I tested the ergonomics of the DUO strobes using no gloves, Kubi dry-gloves with the standard under-glove and then with a Fourth Element 5mm neoprene glove.

The dials have a reassuring click when moving between settings and both moved smoothly regardless of which glove combination I was using. One thing I will highlight, if you have your strobes positioned to the side of you, the light adjustment dial is obscuring the EV and GN numbers and can be difficult to see due to how large the dial is. If shooting on manual I expect you would learn where the numbers are quite quickly, but I found

Hermit crab. Olympus EM1 ii, Nauticam housing, Olympus 30mm macro, f 4.5, 1/125, ISO 200, RC mode, strobe on N.

Goby. Olympus EM1 ii, Nauticam housing, Olympus 30mm macro, f 4, 1/80, ISO 500, RC mode, strobe on N.

Snakelock Anemone. 30mm, f 4.5, 1/125, ISO 200, RC mode, strobe on N

this a little frustrating using the unit for the first time having to reposition myself and check what EV number I was using on RC mode.

My favourite feature on the DUO is a quite a simple one, these units are just so easy to move underwater. The units weigh 610g each, and around 770g with batteries (Eneloop pro) and a ball mount. The submerged mass with batteries and a ball mount is just -20g. Having almost zero buoyancy allows the user to freely move these strobes around without having to adjust clamps to keep the strobes in place. You can just loosen your clamps, move the strobe and they just stay where you leave them, what a dream.

The RC mode certainly seems to do as advertised and automatically worked out the exposure every time, the lighting was even and exposure was good, I would say slightly darker than I usually aim for on manual but by no means underexposed. I had a couple of uneven misfires but overall the strobes performed well and the accuracy of the RC TTL was considerably better than the standard TTL. Images were well exposed, even after large changes in settings and some questionable visibility.

Disappointingly due to the typical British weather and some postage issues I had only one day of diving in the sea with these test units. I hope to provide a more thorough review of the performance of the YS-D3 DUO and RC mode in the future.

Shannon Moran
www.shannonmoranphoto.com