

Ikelite DS161 Substrobe with video light

by Phil Rudin

Ikelite Underwater Systems is a U.S. company which has been making underwater photography equipment since 1962. The company has an outstanding reputation for customer service both with new and ageing equipment, offering upgrades and fast service turnarounds to their many loyal customers.

The Ikelite DS 161 Substrobe is a high power wide angle strobe combined with a built-in 500 lumen LED video light. The Ikelite DS 161, product number 4061.1 includes the strobe head, rechargeable Li-ion battery pack with smart charger, diffuser, waterproof bulkhead cap, silicone lube and a two year manufactures warranty.

These strobes are very popular among professional photographers for shooting wide angle, portrait's and macro. The strobe has TTL for compatible Ikelite TTL systems and a manual power mode with 10 1/2-light stop increments. The strobe has a 90 degree angle of coverage without the diffuser and 100 degrees with diffuser.

The DS 161 remains one of the brightest strobes on the market with

a high guide number of 24 m at ISO 100 and is depth rated to 90 meters (300ft).

One of the important things that sets this strobe apart from many others in todays market is the quality of light produced by the round flashtube and reflector. With a flash color temperature of 4800K this strobe is designed to provide a soft and very even light coverage. The warm light delivered by this strobe eliminates the need for light dimming add-on diffusers.

The built-in 500 lumen video light provides a 45 degree angle of coverage which is perfect for close-up video and for use as a focus light. The LED light has 10 brightness settings plus SOS mode for emergency signaling. The LED shuts off automatically when being use as a focusing light in conjunction with the strobe firing to avoid any undesirable effects.

Southern Spiny Lobster, Canon 100D, Canon EF-S 18-55mm zoom ,Ikelite housing, Ikelite DS 161 in TTL, ISO-100, 55mm, F/16, 1/200 sec





I used the focusing light feature as my primary dive light a night dives of around three hours and took 200+ flash photos without running out of battery power.

The DS 161 has two main parts the strobe head and the battery pack. The strobe head contains the TTL and manual power settings control dial, three power gauge lights one of which is the ready light for the strobe, the round flashtube, the LCD video light, the diffuser mount, the bulkhead connector for sync cables and the mounting point for strobe arm attachment.

The battery is a proprietary Li-ion pack, the rear of the pack contains the locking system for attaching the battery to the strobe head. The side of the battery has the selection dial to turn the strobe/video light on and off plus a sliding lock that prevents the strobe from being turned on by accident. It is VERY IMPORTANT to engage this locking device if you are traveling or transporting



the strobe while assembled.

The battery is removed from the light head by pulling, lifting and then rotating the locking lever 90 degrees. Once separated a single O-ring sits inside the battery pack to seal the two parts together. This O-ring should be regularly maintained with lubricant after a proper cleaning. The charging point for the battery pack is also located inside the rear part of the battery. The rechargeable 7.4V Li-ion battery pack ships with an Ikelite 4067.1 Smart Charger and you should not attempt to use any other charger with this battery pack. Recharging time is approximately five hours and may vary depending on length of prior use and other factors. The smart charger ships with a flip out US style plug and includes European, Australian and UK plug adapters.

The included diffuser slips into place and locks by rotating clockwise. The diffuser has two lanyard holes to secure it to the strobe head. Not included



Adult French Angelfish, Canon 100D, Canon EF-S 18-55mm zoom, Ikelite housing, Ikelite DS 161 in TTL, ISO-100, 55mm, F/11, 1/200 sec

is the ball-type mount for mounting the strobe to Ikelite or non-Ikelite strobe arms. This is selected depending on your personal needs. The strobe also requires a sync cord which is not included again because of your personal needs. You can chose from a verity of cord types, first is the Ikelite coil cord for TTL with digital cameras using Ikelite TTL conversion circuitry. This is the proprietary conversion circuitry built into Ikelite housings for use with a verity of different manufactures camera systems.

Next is the Ikelite conversion circuitry for a verity of Ikelite housings for film cameras. Ikelite also has sync cords for Nikonos V and Nikonos RS cameras. Last are the sync cords for non-Ikelite housings for digital cameras and compatible TTL adapters. All of these cords use a five pin system for conversion of the TTL information.

Ikelite has also recently introduced the Optical Slave Converter for fiber optic/remote

slave triggering, part #4403. This part attaches to the strobes bulkhead connection and allows a 90 degree field of view for remote triggering. An included fiber optic cap can also be threaded to the optical slave for use with fiber optic cords. This can be used with some manufactures internal fiber optic flash triggering systems. Note that the optical trigger works with the DS-series strobes and only with manual strobe power settings, it DOES NOT work for TTL exposures.

Once the battery has been charged and installed turn the power switch clockwise to the strobe ON position, Rotate further to the ON with light position and the strobe and focusing light are now both turned on. Turn the dial counterclockwise to the Battery with light position to test the fuel gauge and to turn ON the video light. The fuel gauge will display 0,1,2 or 3 red LED lights to indicate the remaining power. With 3 LED's power is above 75%, 2 LED's above 50%, 1 LED above 25% and no LED less than 25%. The third LED will glow GREEN for three seconds when the strobe fires and a proper TTL quench has occurred. This light only illuminates when using TTL for exposures. Fractional power settings for manual flash photography are in half stops of light and should be used only after a full recycle indicated by the RED #2 ready light. Depending

on your camera type the lighting bolt ready light in the camera might flash to indicate a full recycle, consult the manual for your camera type.

My kit for the test dives

My test dives were made using the DS 161 with the Canon EOS 100D/SL1 camera and Ikelite housing with an Ikelite tray and arm system. Making its debut at DEMA 2013 the newly released Ikelite housing for the Canon EOS 100D SL1 has to be the smallest DSLR housing package I have ever seen. Smaller than many mirrorless camera systems this combination ticks all the boxes for the traveling photographer. The system is small, light weight and easy to pack in just about any airline carry-on bag. I would recommend this package to anyone looking for a small and cost effective system or to the photographer looking for a backup system. You can read my review on the Ikelite/Canon 100D/SL1 system in the May/June 2014 issue #78 of UWPMAG.com.

In the field

My field tests for this review were done with the Canon EF-S 18 to 55MM F/3.6-5.6 zoom lens, this is the kit lens sold with the Canon 100D/SL1 camera as a package by Ikelite and others. I used one DS 161 strobe with the system and placed it



Parrotfish, Canon 100D, Canon EF-S 18-55mm zoom ,Ikelite housing,Ikelite DS 161 in TTL, ISO-100, 49mm, F/16, 1/200 sec

above the lens for both landscape and portrait shots.

I used an Ikelite six inch strobe arm and clamps to hold the DS 161 and it proved more than adequate for my needs. This small package is quite fun to shoot with and very well balanced. The DS 161 is just a shade negative in saltwater so the entire system could be handled with one hand even on shallow water dives of close to three hours.

I shot both day and night dives using only the strobe as my light source for focus, flash and dive light. I was quite impressed with the fast

recycle times while shooting both at the wide and closeup ends of the 18 to 55MM lens. The DS 161 90 degree AOV more than covered the lens at its widest angle and my images show very consistent and pleasing light.

In all disciplines of photography pleasing light is the difference between average and exceptional images. The DS 161 delivers very pleasing light and more. I did most of my shooting with the strobe in the TTL mode and found that the TTL was quite accurate in most cases. On some occupations while shooting at night I found that like all strobes



*Atlantic Horseshoe Crab, Canon 100D, Canon EF-S 18-55mm zoom
Ikelite housing, Ikelite DS 161 in TTL, ISO-100, 27mm, F/16, 1/200 sec*

shooting in TTL at night some shots tended to be overexposed. This was easily controlled by covering a bit of the light head with my fingers to reduce light. This takes less time than using EV controls on the camera for me.

The video light is more than adequate for many closeup/macro needs and for those like me who only use video on limited occasions in conjunction with still images. The DS 161 takes up a bit more space in your travel bag and weights more than its compact competitors but it excels in power and its broad range of uses. If you are an Ikelite housing system user the DS 161 would be a no-brainer

for me and well worth the tradeoff shooting with manual power settings for non-Ikelite housing users.

The Ikelite DS 161 MSRP is \$1100.00, combined with a TTL sync cord for Ikelite and the Ball Arm Mark II kit the MSRP is \$1475.00, extra battery packs MSRP \$200.00, a complete extra charging kit with plug adapters MSRP \$100.00 and the optical slave converter has an MSRP of \$125.00. All these products can be found at your local authorized Ikelite dealer.

www.ikelite.com

Phil Rudin



Issue 81/34

DPG ULTIMATE EXPEDITION: ANTARCTICA

MARCH 2015

JOIN DIVEPHOTOGUIDE FOR AN
UNDERWATER PHOTOGRAPHY TRIP UNLIKE ANY OTHER

MORE INFO: UWPHOTO.TO/1cBxUiJ

EMAIL: TRIPS@DIVEPHOTOGUIDE.COM

