

ONEUW ONE160x

by Phil Rudin

ONEUW is an Italian company based in Cividale del Friuli, a city in north-east Italy near the Croatian border. ONEUW is a company that set out to design a wide angle underwater flash without compromise to light quality, high efficiency, ease of use, durability or reliability. The result of this years long project is the ONE160x a remarkable tool for the creative still image maker. This flash is not a hybrid with built-in video lights or lots of add-on accessories it is a workhorse designed for photographers who demand the very best.

This flash is incredibly robust because it is built in the same way as most modern aluminum U/W housings form a single solid block of corrosion resistant aluminum. The one160x flash is tooled using an ultra-modern multi-axis CNC machining process and after a hard anodic oxidation process, it is coated with nanotech quartz making the surface hydrophobic. All of the controls shafts are double o-ring sealed stainless steel. The robustness of the strobe allows it to be used for technical diving and each flash undergoes hyperbaric testing at pressures equivalent to 200 meters (656ft) of depth.

The controls for the flash are simple, reliable, very easy to use even while wearing heavy gloves and quite clever and inventive. The flash has no

Diver Tom Entering Ginnie Springs Ballroom, Sony A1, Tamron 17-28mm F/2.8 at 17mm, Nauticam NA-A1 housing, Nauticam WACP II, two ONEUW 160x flashes, ISO-100, F/5.6, 1/100th sec



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push buttons or switches and is controlled by two large levers and one large rotary control.

The red lever is marked “Main” and the black lever is marked “Input” when you pinch the two levers towards the center of the flash it turns-on, a beep is heard and the modeling light comes on briefly. Once the flash is on you will see a TTL indication and a lighting bolt indication next to the red lever. This indicates that the flash is ready to fire and that TTL can be achieved depending on your needs. Next to the black lever you will see “SYN” for synced for use.

Push the lever once and the setting moves to “OPT” for fiber optic operation. Push again and “SLV” for slave appears and the word “Full” appears in the center of the screen indicating that the flash will sync at full power. Turn the large black

rotary knob counter-clockwise and the power level is reduced in half stop increments from -0.5 all the way to -6.0 or twelve separate stops of light intensity shooting in slave. Using TTL or the rotary knob controls +/-EV up to 2 stops in 1/3 stops increments.

When the flash is mounted right side up with the battery compartment at the top the letters and numbers in the display window will be facing up. If you turn the flash upside down as many do when it is attached to support arms simply pinch the two levers and the display will invert and a test flash will fire. If you turn the rotary knob the power levels will appear right side up.

The flash is shut down by pinching and holding the two control levers for about two seconds, you hear two beeps and the flash shuts down. Once the flash is on if you push the

red level once the modeling or pilot light will come on at 50% power, push again and it will go to 100% power and push again to shut off. On the display you will also see “PL” inducing the pilot light is on.

Currently the ONE160x flash can be ordered with the Canon E-TTL protocol (version 160.200) built-in which will fire in TTL with both sync cables or fiber optic cables. You can also order the Nikon version (160.100) which has built-in i-TTL for Nikon, it will also fire in TTL using sync cables or fiber optic cables. This means that you don’t need to install a separate TTL-flash converter which is normally around a \$450.00 additional investment. Just use a normal TTL hot shoe with S6 or Nikonos V sync cord or chose a fiber optic cord to shoot in TTL. In the event you move from Canon to Nikon or vice versa you can return the flash to ONEUW for a

firmware update to the new brand.

Both versions of the flash accept the S6 to S6 sync cables or the S6 to Nikonos V sync cables and accept single or dual sync cables for two flashes. In the fiber optic mode you can also use cameras without the Canon or Nikon protocol and shoot with manual power settings. The port for the S6 end of the sync cable is on the bottom of the flash and is covered with a water tight cap when not in use. The mount for the 45 degree optical cable is between the ball mounting point and the sync cord port.

The flash is powered by a proprietary NBP-4830 NiMH battery pack which installs from the rear of the flash. The battery cap has a large flat dial that turns counter-clockwise about 1/8 of a turn to open when the red cap lock is depressed, pull up to remove the cap and insert the battery. The battery and the cap which has a



single o-ring only fit into the battery compartment turned in one direction.

My battery chargers came with the standard EU plug and I needed to use an adapter for the US outlet. The flash ships with the battery pack and neoprene battery bag, battery charger, o-ring set, user guide and a two year warranty with a one year battery pack warranty.

The specs for the flash are as follows, max energy 157 Ws (j), circular beam angle is 130 degrees, full power flashes over 250 per battery charge, 200 lm pilot light, battery type NiMH 4.8V 3050mAh, battery charging time 90 minutes, dimensions 99x200mm, in air weight with battery 1480 g, max depth 200 meters, 360 degree circular flash tube, Color temperature 4,600 degrees kelvin, GN-20 at ISO-100 at one meter. While the specs show a guide number of 20 I can assure you that the light output from this flash exceeds every light I have tested in the past even those with much higher advertised guide numbers. The beam intensity is also the most even I have seen out to the edges of the frame. While this flash is excellent for extreme wide angle even when the scene is back lit it also allows you to shoot very low ISO macro with the highest of f/numbers for greater DOF and max



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Spadefish Schooling, Blue Heron Bridge, Florida, Sony A1, Sony FE 28-60mm F/4-5.6 at 28mm, Nauticam NA-A1 housing, Nauticam WWL-1B, two ONEUW 160x flashes, ISO-200, F/8, 1/250th sec

image detail.

The oneuw.com web-site is in Italian or English, in the support menu is a 50 page PDF operations manual which is extremely useful. The manual is loaded with photos and illustrations to fully explain the operation of the one160x flash.

ONEUW offers little in the way of accessories for this flash besides extra battery packs, a neoprene body cover, neoprene dome cover, one inch M6 ball adapters in straight and 45 degree angels, assorted

spiral sync cords and a white diffuser that snaps over the flash and has a red center filter. The EU price including 22% VAT is €1790.00, £1550.00 including VAT in the UK and \$1700.00 in the US.

Field Testing the ONE160x

I used two ONEUW160x flashes for my field testing setup using fiber optic cables with the flash set in optical which eliminates the pre-flash. I used



Florida fresh water turtle, Devil's Run, High Springs, Sony A1, Tamron 17-28mm F/2.8 at 28gmm, Nauticam NA-A1 housing, Nauticam WACP II, two ONEUW 160x flashes, ISO-200, F/8, 1/125th sec

a Sony A1 camera set to manual using the fill-flash setting.

With these settings the strobe power is regulated by the rotary knob which is set to 00 when you turn the flash on. Turn the rotary knob clockwise and the power increases in +0.3 stop increments. Rotate counter-clockwise and power is reduced in -0.3 stop increments. For this review I used the Nauticam NA-A1 housing and Sony A1 camera, with the Sony FE 28-60mm F/4-5.6 and the Tamron 17-24mm F/2.8 lenses. The Sony lens

was mated with the Nauticam WWL-1B wet contact lens and the Tamron lens was mated with the Nauticam WACP II wet lens.

Between the two lenses I had an effective full frame zoom range between 130 and 69 degrees with a minimum focus distance within millimeters of the port glass.

I found the recycle time for these flashes was excellent and well suited to my needs. My strobes included the Neoprene body covers that protect the finish on the outside of the strobe.



Polka-Dot Batfish, Blue Heron Bridge, Florida, Sony A1, Sony FE 28-60mm F/4-5.6 at 60mm, Nauticam NA-A1 housing, Nauticam WWL-1B, two ONEUW 160x flashes, ISO-200, F/10, 1/200th sec

While I understand why these covers are popular with many photographers I found them to be an aggravation because they do not dry quickly. I found myself having to remove the covers from the flashes after every cleaning so they could dry separately which in many cases took several days.

The consistency of light coverage over the entire frame even at 130 degrees was excellent and the quality of light was as good as I have seen in any flash at any price. If you are

looking for the very best the ONEUW one160x should be at the top of your wish list.

I would like to thank Reef Photo & Video for loaning me the flashes for this review. You can consult your local authorized ONEUW dealer for further details and pricing in your area.

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www.reefphoto.com