Marelux SOFT Snoot Focusing Light

By Phil Rudin

Light shaping devices have been around about as long as land photographers have been exposing images. Underwater photographers have adopted these same techniques by using the position of the sun to create interesting lighting effects, a verity of diffusers to widen and soften flash lighting and more. Multiple flashes can control shadows, highlights, contrast, color and depth.

Another technique underwater photographers have taken right from the studio photographers toolbox is the use of snoots for shaping and directing light onto the subject. A snoot is a cylindrical or conically (cone) shaped lighting device which is fitted over the flash to produce a focused light beam directed onto the subject. The snoot creates a column of light which will allow you to separate a subject from its background or place a very narrow sliver of light on an element of your subject like its eye or mouth. We most often see snoots used for macro photography but they also work well for close focus wide angle situations.

I began using snoots made from a white plastic funnel taped to my flash more than forty years ago in my film days. This was a very frustrating endeavor because it was hard to tell where the snoot was pointed and without the instant feedback of live review you never knew if you got the shot you wanted.

With today's digital equipment using a snoot can still be a bit frustrating but it can be far more

productive than in the thirty-six exposure film days.

The use of snoots has become so popular in underwater photography that several types of snoots are now commercially available and many more home made versions can be found on the internet. Most commercial snoots are of two types. Those where the light is conducted through a hollow tube and those where the light is conducted through a bundle of fiber optic cables.

With most hollow tube snoots different size aperture cards can be added to widen or narrow the light beam and color filters can also be added. The light can be moved closer to or away from the subject to change the shape of light. This allows you to harden or soften the edges of the light to affect the look of your photograph. A harder edged light will reduce "spill" (stray light) from getting onto parts of the photograph where you don't want the

Octopus, Blue Heron Bridge, Sony A1, Sony 90mm macro, Marelux MX-A1 housing with macro port, Marelux MX-SOFT, Inon Z-330 flash, ISO-640, F/9, 1/400th sec

light to be. With a soft edge the light beam makes a smoother transition across the photograph from light to shadow which is preferable for many critter portraits just as it is with people portraits.

Marelux SOFT Snoot

Marelux Precision Incorporated is headquartered in California USA and products like the SOFT are manufactured in China. Marelux is owned by several hard core professional underwater photographers and engineers who love to dive as much as I do. The web site, which is still a work in progress is Marelux.co.

The Marelux SOFT (Smart Optical Flash Tube) Snoot is unique because of its wide range of control over the light beam. The SOFT is designed for use with a verity of popular underwater flash heads. The SOFT uses "Docks" designed and sold separately for Ikelite DS161, Inon D200, Inon Z-240, Inon Z-330, Retra Flash Pro X, Sea & Sea YS D2 & D3. Additional docks have been added for the Seacam 150, Seacam 160, AOI Q1, Inon S2000 and Sea & Sea YS D1.

The docks sell from $99.00 to $149.00 and the SOFT main body sells for $399.00 bringing the total cost for Inon Z330 dock and SOFT to $548.00 currently in the US. Marelux has a network of dealers world wide so check your area of the world for latest pricing.

The SOFT has three parts, the first is a metal dock which is mounted to the flash in several ways depending on the flash type. The dock I used is for the Inon Z-330, my most frequently used flash. The dock simply threads onto the "Light Shade" mounting threads already on the Inon Z330 flash. To mount the SOFT to the dock simply align the white mark on the SOFT with the white mark on the dock and turn 45 degrees until the SOFT is locked into place.

To remove the SOFT hold down the locking device and reverse the process. This keeps the SOFT securely mounted to the flash dock at all times. The SOFT ships with a one inch ball-

Peacock Flounder, Blue Heron Bridge, Sony A1, Sony 90mm macro, Marelux MX-A1 housing with macro port, Marelux MX-SOFT, Inon Z-330 flash, ISO-640, F/9, 1/400th sec

head that mounts with two stainless Allen screws to the bottom of the SOFT. The SOFT also comes in a useful hard case for protection during travel and storage along with extra O-rings for the battery cap.

When the flash and dock are mounted with the SOFT ball-head the entire unit is well balanced on the mounting point. I mounted the SOFT directly to the top of a Marelux MX-A1 housing for the Sony A-1 using a Marelux three ball cross bar which is sold separately. The cross bar mounts to the housing grips and uses the standard one inch ball-head and a clamp of your choosing. I also used the SOFT handheld and on a small tripod which allowing several different configurations depending on the shooting situation. Docks for the other non-Inon flashes slide over the flash head and are secured in place with Allen screws.

The second part of the SOFT is the adjustable aiming light battery and switch compartment which is on top of the SOFT light tube. The cap end

of the battery compartment is double O-ring sealed and excepts a 67mm long 18650 Lithium 3.7V battery which is inserted with the plus end towards the no/off switch. Once the O-rings on the cap are properly lubed it threads into the battery tube and securely seals.

The battery is rated to run sixteen hours continuously with a fully charged battery. The batteries and charger are sold separately and I sourced mine from BH Photo. I am sure battery life will differ a bit between battery brands.

A switch on the top of the SOFT tunes the aiming light on and off. The aiming light has a brightness of 180lumen at 130mm from the subject and the beam angle can be adjusted from 8mm to 50mm using the wheel on the side of the SOFT.

The recommended shooting range is 120mm to 180mm from the subject and of course the closer you get the smaller the beam angle will get down to about 2mm. As the beam angle is decreased so is the intensity of the light. As always the light should not be turned on above water except to make sure it is working.

The third part of the SOFT and what makes it so unique is the dial on the right side that adjusts the beam angle. The SOFT has an iris inside that opens and closes much like a camera lens when you change

apertures settings. The dial is so easy to control that you can reach up while looking through the viewfinder and see the light beam change shape and diameter in real-time. This is very useful when trying to pinpoint a subject because you can start with the iris wide open and then just slowly reduce the beam angle to the desired size while remaining locked on the subject.

With the SOFT mounted upright on the cross bar the dial is on the right-hand side which is the hand used to hold the housing and trigger the camera. I would have preferred the dial to be on the left-hand side but find it easy to reach over the top and control the dial with my left hand.

Sea Urchin detail, Blue Heron Bridge, Sony A1, Sony 90mm macro, Marelux MX-A1 housing with macro port, Marelux MX-SOFT, Inon Z-330 flash, ISO-400, F/5.6, 1/400th sec

Off camera handheld or on a tripod the the wheel placement is not an issue. The aiming light is mounted in front of a slightly opaque filter which sits between the flash and the light tube. This filter is installed to soften the flash so that "hot spots" are not created in the frame. At the end of the SOFT tube is a ground glass element that helps shape the light beam coming from the Z330 flash as it passes through the iris and travels down the SOFT flash tube. The result is a soft pleasing light that is neither harsh nor overly hard at the edges between dark and light.

I normally do a lot of my macro tests at the Blue Heron Bridge in Palm Beach County, Florida USA when I am not traveling out of the country. This is a shallow area so two to three hour dives are common. To test the battery endurance of the SOFT I just turn the aiming light on at the beginning of the dive and didn't turn it off until the end of the dive. The remaining battery level after one dive has always been more than enough to

Blue Heron Bridge, Sony A1, Sony 90mm macro, Marelux MX-A1 housing, macro port, Marelux MX-SOFT, Inon Z-330 flash, ISO-400, F/5.6, 1/400th sec

do at least two more like dives or well more than a full day of diving.

The Marelux SOFT is made from anodized aluminum and is 210mm long, total length depends on the type of dock and flash used. The SOFT with Z330 dock weights 205g in air, 135g in water and

Peacock Flounder Eye, Blue Heron Bridge, Sony A1, Sony 90mm macro, Marelux MX-A1 housing with macro port, Marelux MX-SOFT, Inon Z-330 flash, ISO-640, F/9, 1/400th sec

is depth rated to 100 meters. Clean the SOFT after each dive in the same way you would with the rest of your camera gear. The dock holds some air so don't be alarmed if you see bubbles coming out around the flash when you first enter the water.

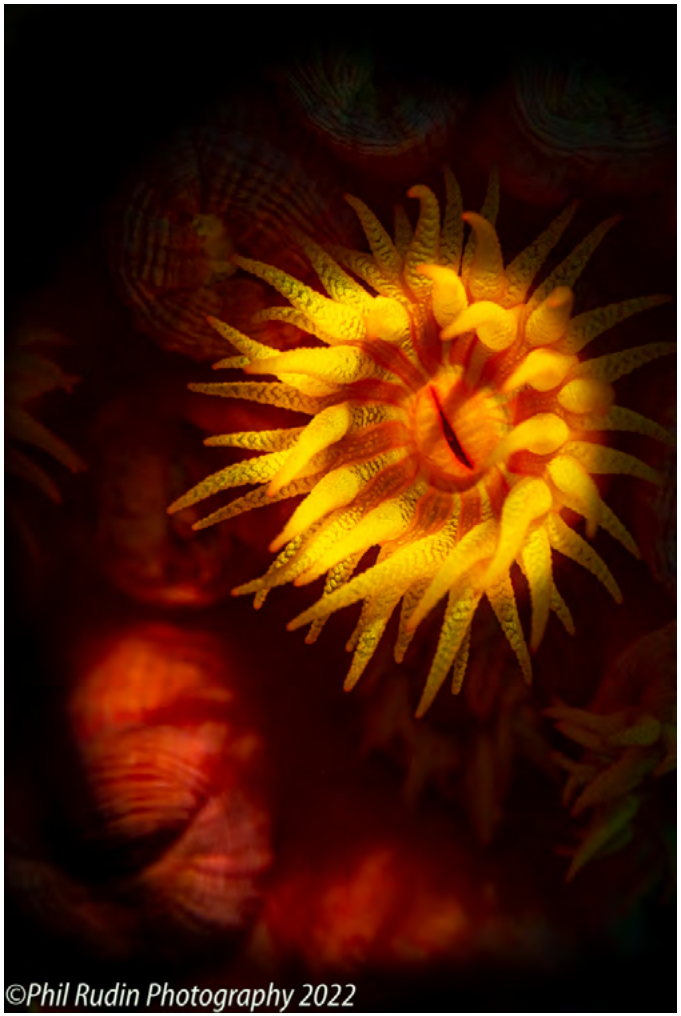
I would also note that color gels can be installed between the back of the soft and the dock when they are connected. The gel is held in place between the flash and the back of the SOFT allowing you to try different color lighting effects. Keep in mind that darker color gels like red reduce the amount of flash intensity while lighter gels like yellow allow more light to pass through the SOFT to the subject.

Field Testing the Marelux SOFT

I tried four different methods to mounting the SOFT, hand-held, on a tripod, mounted directly to the cross bar on top of the housing and mounted

Mantis Shrimp Eye Detail, Blue Heron Bridge, Sony A1, Sony 90mm macro, Marelux MX-A1 housing with macro port, Marelux MX-SOFT, Inon Z-330 flash, ISO-640, F/10, 1/400th sec

on a flash arm attached to the housing. Hand held works well if you are shooting in a location where you don't need a free hand for balance, support, or in current, etc. The big issue using the hand-held technique is holding the housing steady with one hand while you are attempting to focus a small sliver of light onto an in focus subject. I can't stress enough how important it is to have a well balanced easy to control housing when hand-holding. To assist with this I added a carbon fiber float arm to the Marelux MX-A1 housing for added buoyancy and balance. I also used the same arm and a four inch ball arm for support when the SOFT was mounted to the housing. The problem with the arm/housing mounted method is trying to lineup the subject and focus the lens while while moving the light beam onto the subject at the same time. I found it somewhat frustrating having one eye glued to the viewfinder while trying to aim the focusing light with the other on an arm. With the SOFT mounted



Orange Cup Coral, Blue Heron Bridge, Sony A1, Sony 90mm macro, Marelux MX-A1 housing with macro port, Marelux MX-SOFT, Inon Z-330 flash, ISO-400, F/5.6, 1/400th sec

directly to the cross bar on top of the housing and centered over the macro port moving the light where you wanted it to be was less challenging. The light pattern does however become a bit more oval as a result of the angle which the aiming light

Juvenile Parrotfish, Blue Heron Bridge, Sony A1, Sony 90mm macro, Marelux MX-A1 housing with macro port, Marelux MX-SOFT, Inon Z-330 flash, ISO-640, F/9, 1/400th sec

is coming from. This can be good or not so good depending on your subject. For side lighting the top mounted configuration is much less useful and going to a tripod can work best. With the SOFT mounted on a tripod the light can be aimed at the subject from any direction and the camera can be moved around the subject to get the most ideal composition. The problem with this approach is that you can't always find a convenient place for the tripod where it will be close enough to the subject while not doing damage to the surrounding marine life. If you chose to use a tripod your first concern should be for the safety of the reef. With the tripod or handheld approach it helps to have an extra long fiber optic flash cable with a small coil rather than the commonly used fiber cords for housing mounted flash. I found that the shorter fiber cords tend to get tangled as you are moving everything into position for the shot while a longer cord with less coil will not tangle as much.

When you trigger the flash the aiming light turns off for 1.2 seconds so that it does not appear in the photo and then comes back on for the next shot. This process all takes place in mili-seconds as soon as the flash is detected by the SOFT. I have tested other products that make similar clams but the SOFT is the only one I have tested that succeeded in turning off and on consistently.

With the Sony A-1 I was using ISO settings from 200 to 640 with aperture settings of F/2.8 to F/14 depending on my desired out of focus background. I also used a flash sync speed of 1/400th sec. The Sony A-1 is unique in regard to the high 1/400th sync which results in blacker backgrounds than the common 1/200 & 1/250th setting on most cameras. You will see in the attached photos that you can achieve very pleasing edges between light and dark areas especially when night diving. This is an in-camera precess not a Photoshop masking process which is one of the reasons I like the SOFT so much as a lighting tool. Other photos show how the light can be positioned to make a more elongated oval light shape for subjects that are not so two-dimensional.

While the Marelux SOFT is more expensive than some of the other snoots I have own or tested it is the best one I have used to date. I would highly recommend this product to the hard core macro and night diving enthusiast for its ease of use and excellent design. This is a tool that can take your macro from photography to fine art.

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