

Backscatter Color Filter System

by Phil Rudin

Backscatter Underwater Video & Photo is a Monterey, California based US company with a second showroom in Derry, Hampshire USA. For over twenty-five years Backscatter has been providing excellent retail sales and service to the underwater photography community. They sell and service a large selection of UW photography equipment for compact, mirrorless, DSLR, GoPro, pro video, lighting, hardware, and more, also providing photography trips and training classes.

Backscatter Mini Flash MF-1 and Optical Snoot OS-1

The Backscatter Mini Flash 1 or MF-1 and Optical Snoot 1 or OS-1 were introduced at the DEMA in November of 2019. I now have a pair of both the flashes and snoots, they have become my Go-To kit for all of my macro needs. I did a full review of both the MF-1 flash and the OS-1 snoot for the Jan/Feb 2020 issue #112 of this magazine which can be found in the back issues on the home page.

The focus of this review will be field testing of the Backscatter

Color Filter System for the MF-1 flash and OS-1 snoot system plus the Backscatter Macro Wide 4300 video light described below.

Backscatter Macro Wide 4300 Video Light

The Backscatter Macro Wide 4300 underwater video light MW-4300 has 4300 lumen smooth wide beam with a 1400 lumen custom macro mode. The light uses two interchangeable 21700 Li-Ion batteries sold separately and retails for \$499.00.

The first question I am usually asked about the video light is 'will it work with the same batteries as the MF-1 flash' and the answer is 'no', the video batteries are larger and more powerful. The light also features a red focus light for night diving which I have also used to add color while cavern diving. The light also has a flashing beacon mode and it is rated to 100m/330ft. It includes both the one inch mounting ball and the YS mount.

The light is also compatible with the optical snoot OS-1 and the complete Backscatter Color Filter



Shot in a pool with the video light behind the subject using Bold Hot Pink filter with light green front lighting from MF-1. Sony A7 IV, Sony FE 90mm macro lens, Marelux MX-A7IV housing and macro port, ISO-100, F/10, 1/250th sec



System which is the subject of this review. For more details on the 4300 video light checkout backscatter.com for full articles and video reviews of this product.

The Backscatter Color Filter System

The Backscatter Color Filter System bundle includes four items, the MF-1 flash and MW-4300 video light color filter holder interchangeable between both. The OS-1 snoot filter holder which works with both lights, the bold color filter set and pastel color filter set. Each color filter set has six different and distinctive colors held together in one unit which fans out to display the colors.

The Bold color set has Red, Blue, Purple, Green, Hot Pink and Dark Amber filters. The Pastel color set has Lavender, Light Blue, Light Green, Pink, Yellow and Turquoise filters. Once the filter holder is pushed onto the flash, video light or snoot one of the plastic color filters can be inserted into the filter holder. Once inserted the color filter snaps into place and feels very secure. I had no issues with the color filters moving or falling out of the holder. The color quality and even spread of light was excellent.

Prior to using the Backscatter system I had made my own color filters from photo quality color gels intended for land use. Securing these filters to the flash/video light and carrying a number of different colors



© PHIL RUDIN PHOTOGRAPHY 2022

Yellow Cup Coral, Hot Pink rear lighting MF-1 and Yellow front lighting with MF-1. Sony A7 IV, Sony FE 90mm macro lens, Marelux MX-A7IV housing and macro port, ISO-200, F/18, 1/250th sec.

underwater was a chore to say the least.

With the Backscatter color filter system you have a stainless mounting point that can be attached to a clip or in my case strung over the wrist strap I use to carry the video light. With this system I am able to switch the filters between the strobe, snoot and video light with ease.

The lights work very well on or off the camera housing and I frequently mounted them on a tripod or just resting on the bottom. This

makes lighting the subject side, back, overhead much easier. I frequently use the video light with a color filter to light dull background areas while using white light or a different color filter for the closer foreground subject. The color configurations are only limited by the imagination and subject matter.

Like all filters light intensity varies depending on the opacity of the color filter, more light intensity with say a yellow filter over a purple or dark blue filter. This issue can

be addressed by raising or lowering the light output for the flash or video light to control over or under exposure. It can also be addressed by moving the light source closer to or way from the area you are lighting.

Field testing

For my field test I used two MF-1 strobes with snoots and one 4300 video light with the Sony A7 IV camera, Sony FE 90mm macro lens and the Marelux MX-A7IV housing with macro port. At times I was only using one MF-1 flash with OS-1 snoot mounted on and off the housing.

Like most of my new equipment reviews I like to start out in a swimming pool where I can spread the equipment out on the bottom and see how it performs using a stationary macro subject. This helps with getting an idea of how well the focus light works with the snoot while targeting the subject. How the lighting looks as you move the lighting around the subject and much more.

Because of the compact size of the MF-1s moving through the water with the system was as easy as it gets with a full frame camera housing. The narrow beam angle of the MF-1 with and without snoots allows you to separate the subject from the background making the colors pop while maintaining a dark background or using a color filter to fill the background.

For blue water backgrounds the narrow beam reduces backscatter in the

ambient light areas. The MF-1 was extremely easy to move around the macro port on the housing allowing a wide verity of multiple lighting combinations like overhead lighting, extreme side lighting, back lighting, inward lighting and much more.

Placing the flash or video light on a tripod off camera increases the possibilities with both a single light or combination of lights. I use a small stainless RGBBlue tripod for extreme side and back lighting.

I noticed that at the highest power levels the MF-1s are a bit slower recycling than my Inon Z-330 type II flashes. This is not an issue for me when shooting macro because I try to take my time with critical focus and composition especially when shooting full frame cameras. With the 90mm macro I shoot most of the time at ISO-100, F/13 to F/22 at 1/250th sec.

The system with two MF-1 flashes is a bit on the heavy side without some flotation or flotation arms.

Small Conch, Bold Green side lighting with video light and front MF-1 flash with Lavender filter. Sony A7 IV, Sony FE 90mm macro lens, Marelux MX-A7IV housing and macro port, ISO-100, F/7.1, 1/250th sec



© PHIL RUDIN PHOTOGRAPHY 2022



© PHIL RUDIN PHOTOGRAPHY 2022

Seahorses MF-1 with Yellow filter front lighting and rear video lighting with Bold Blue to make the background more colorful. Sony A7 IV, Sony FE 90mm macro lens, Marelux MX-A7IV housing and macro port, ISO-500, F/11, 1/250th sec

I used values from ISO100 to ISO500 at F/11-F/22 using MF-1 power levels from 2 to 6 while shooting in a range from about 6 to 18 inches from the subject.

Normally I place the strobes about flush with the front of the port or in close to the subject when using the lights off camera. The MF-1 flash has more power than the video light so does not need to be moved as close.

While I have not had any issues, it makes sense to use the attachment points on the flash and snoot to secure

the cords supplied with the system which prevent the snoot or filter holder from being lost if they fall off.

Doing 2 ½ to 3 hour macro dives shooting stills with the focus lights on low power I never reached the RED low power level. Recycle times remain the same at any given power level through the entire dive as well.

Shooting the flash on a small tripod off camera is best done with an extra long fiber optic cord or remote flash trigger. The flash and video light can also be used for wide angle shots

like wreck interiors were you want to back light a feature of the wreck or a person.

The possibilities with the small Backscatter MF-1 flash and video light do not end with macro. I intend to explore the possibilities using color filters for close focus wide angle in the future.

The MF-1 flash is extremely simple to setup and use for anyone familiar with shooting strobes using manual power settings. While I have tried to warm up to shooting macro and wide shots with TTL flash I still find the simplicity of selecting lighting ratios with multiple lights in manual mode to be easier for my workflow.

After each dive I rinse the flash, snoot and video light before removing the batteries then dry for storage. I also fan out the color filters, rinse them and dry well before storage.

If you intend to invest in the MF-1 flash and/or the 4300 video light I strongly suggest you consider purchasing the OS-1 snoot and color filter kit at the same time.

The video light, snoot and color kit sell separately for \$784.00 US, while the MF-1 flash, snoot and color kit sell separately for \$684.00 US. As a kit the 4300 video light, snoot and color kit sell for \$697.00 US an \$87.00 savings while the MF-1, snoot and color kit sell for \$598.00US

an \$86.00 savings. The battery and charger for the MF-1 add \$41.94 while the two batteries and charger for the 4300 video light add \$85.89.

I would like to once again thank Backscatter for product assistance and technical support for this review.

Phil Rudin

Instagram

www.backscatter.com

