

RGBLue video lights

by Phil Rudin

AOI Japan Co. Ltd. is a company that many have only associated with its line of Acrylic and glass dome ports. Starting with the Olympus mirrorless camera housings ports, compact camera housings and recently released ports for the Fantasea Line housings.

What you may not know is that AOI also produce the expanding line of RGBLue Video lights, Spot Beam lights, Twin beam lights, Screen Magnifier systems, compact tripods for U/W use, snoots and more. AOI distributes products in Asia, Europe, Oceania and The Americas. RGBLue's excellent video lights are the subject of this review.

The last time I did a dedicated video light review was for UwP76 in Jan/Feb 2014. Since the 2014 review in addition to video lighting I have been seeing video lights used more and more for stills both on and off camera.

For still imaging video lights work equally well for both wide angle and macro. Many macro shooters have been using small video lights handheld or on tiny tripods for back and side lighting while shooting both stills and video. Adding snoots, color

gels, diffusers and other tools opens a even wider range of possibilities.

The RGBLue System02-2 video lights are second generation module lights consisting of the LM5K3000M light module and the BM6700B battery module. The first thing you will notice about these lights is the excellent build quality, small size and the portability of the system.

The RGBLue system02-2-PC packaging is first rate and contains the "Exclusive case L" (for light I believe). The Exclusive L is a zipper case with an impact resistant cutout foam insert which holds the light and all of the standard accessories included with the kit. In addition to the light and battery modules the kit includes caps for both modules required by law for air travel, a 100V to 240V AC adapter charging kit with with three different removable power plugs for different areas of the world. Also included is a maintenance kit with a spare O-ring, O-ring remover, silicone grease, lintless cotton swabs, a YS type adapter set for mounting the light and a useful hand grip.

RGBLue also includes a condenser lens which reduces the emission angle of the light from 100



degrees to 60 degrees. The condenser lens is extremely well made and threads into the front of the light module. The double structure of the optical lens and diffuser layer ensures flat light distribution without color irregularities. The condenser is also threaded to accept the optional RGBLue snoot kit which has a 16mm and 8mm beam openings with an option for a 4mm beam opening. The condenser also increases the luminance of the light which is great for macro work.

The gun-type hand grip is equipped with a clip mechanism which allows it to be directly mounted to the BCD. I attached the light grip to my BCD several times when I was using the light as a torch for night diving. The clip mount is first rate and stayed positively secured to the BC without fear of loss during the dives.



In addition to the provided accessories there is a large list of optional accessories to cover just about any shooters needs. Some of these include red, ND and color temperature converting filters, a searchlight adapter that reduces AOV to 30 degrees for illuminating at a distance, mounting bases for dual

lights or video light and strobe, a snoot set with three different angles of light emitted while used with the condenser lens, a three way flip adapter, a light blade with 360 degree rotation to block out part of the light, additional mounting ball adapters and an fiber optic remote control.

The fiber optic remote control uses standard fiber optic cables with the Sea & Sea type connection to control up to two System01 or System02 lights. The controller is equipped with a stainless mounting bracket and is powered by a single AA-size battery. The controller allows you to increase or decrease the power for up to two lights while they are extended on support arms or mounted off camera.

RGBBlue System02-2

The color temperature of the System 02-2 lights is 5000K with a color rendering index (CRI) of Ra80. The total luminous flux range (lumens) for the system02-2 light is from 600 to 3000lm depending on whether it is set to the step or non-step control.

With the four-step brightness control continuous lighting starts at 1000lm with a run time up to 600 minute, at 1500/240min, at 2000lm/180min and at 2500lm/120min. In non-step continuous lighting brightness run times are 600lm/1000 minutes and 3000lm for 90 minutes.

Lighting run times are standard values when starting with a fully charged BM6700G battery. Run times are provided by RGBBlue and may vary depending on a variety of conditions. The BM6700G is a rechargeable lithium-ion 6400mA/7.2V battery module and the System02-2 is depth rated to 100 meters.



The LM5K3000M light module mounts to the BM6700G battery module by aligning the small LED light on top of the module with the open mark on the battery module front ring. Press the light head into battery module until the yellow O-ring is seated in place then rotate the battery front ring counter-clockwise until the red lock on the bottom on the light head snaps into place. You should hear the lock snap into the locked position.

To remove the light module press the red lock forward and rotate the front ring clockwise until the open dot aligns with the LED. Then just pull the light head off. The same process is used to mount any of the accessory light heads including the System03 Twin Light Head for macro.

After diving the light should be submerged in fresh water to clean off any salt residue. The light head and battery pack should remain assembled during the cleaning process and not disassembled until fully dried.

On top of all the RGBBlue light modules their



Cenote Guide Miki, Tajma Ha, Yucatan Mexico, Acquapazza Housing, 170mm Dome Port, Two RGBBlue02-2 Video Lights, Sony A7R III, Sony FE 16-35mm F/4 at 16mm, ISO-3200, F/6.3, 1/20th sec.

is a small LED indicator between the up/down push button controls. Viewed from the top with the light facing away the right button is the up button and the left is the down button. To turn the light on just push and hold both up/down buttons until the LED



<https://youtu.be/68dAOVk82TQ>

flashes. Then push the up button once and the LED will glow continuously.

To activate the light in the four-step mode push and release the up button and the light will be at the lowest power. Then each time the up button is pushed the power will increase by one stop through the four power levels. To lower the power from 2500lm just push the down button and the power is reduced by one stop through the four steps.

For the non-step mode follow the same startup process, when the LED glows continually push and hold the up button and the light increases in intensity until maxing out at 3000lm. Keep in mind that the light will

begin to heat up when turned on out of the water so don't leave it on too long especially at the higher power settings.

When the light is turned on and the battery is at a 50% or greater power level the LED glows blue. Below 50% the LED shifts from blue to purple then yellow and then to red as the power drains. The LED turns red when the battery module drops to 5% power remaining. At 5% the light output is automatically reduced to 600lm and will remain running for about an hour. If an error is detected such as in the startup sequence the LED flashes red. Also when the light is first turned on the LED will only



Coral Hawkfish, Puerto Galera, Philippines, Sony A7 III, Sony 90mm Macro, Nauticam housing, One RGBLue02-2 Video light, ISO-640, F/7.1, 1/60th sec.

flash for about five seconds. If the up button is not pushed within the five seconds the LED shuts down and the process needs to be started again.

The light weighs 565g on land and 205g underwater. The dimensions without accessories is a maximum of 68mm X 135mm. RGBLue also offers a System02-2 Premium Color version that uses the same BM6700B battery module with light module LM4.2K2200G. This light module has a 4200K light temperature and a color rendering index of Ra95 with a luminous flux of 300lm to 2200lm.

If you are not familiar with the term Color Rendering Index (CRI) this is a quantitative measurement of the ability of a light source to reveal colors as faithfully as an ideal natural light source. The higher the number the better the light quality with Ra80 and above being very good and Ra90 and above being excellent.

If the first question that comes to your mind when shopping for a video light is how many lumens the light has you may want to rethink your priorities. Quality of the light or CRI should be number one or two on the

top of your list of considerations when buying a video light. Like having more megapixels simply having higher lumens does not always make the product better. Chances are if you go shopping for video lights that don't display the CRI number in their literature it is likely because the CRI numbers are not so good.

Field Testing the RGBBlue System02-2 Lights

I tested the System02-2 lights using Sony A7R III and A7 III cameras with Acquapazza, Ikelite and Nauticam housings. I used Nauticam and Ikelite support arms with standard ball mounting heads.

Because the lights are so light and compact I did not need to use any buoyancy arms opting instead to use two eight inch arm sections on each light. This allowed me to move the system through the water more efficiently and with less drag.

Panning with the lights was smooth and effortless allowing for great transitions. I used the lights to shoot both stills and video during several dives. I found the color rendering to be excellent especially on my model Miki's skin tones. These lights would work great as a constant light source for shooting models in a swimming pool or shallow water beach location as long as the lights are

close enough to the model for proper exposure.

The Mexican Cenote video was shoot with the Sony A7R III and the Sony FE 16-35mm F/4 lens from a depth of around one meter to twenty meters with and without ambient light. The balance between ambient and video lighting was excellent within two to three meters of the model.

At over three meters the light falloff started to become noticeable when the lights were set to 2500lm without the condensers.

The still shots from the Cenotes were taken between ISO-640 and ISO-6400 with the Sony A7R III and FE 16-35 F/4. The A7R III and the A7 III both have excellent image quality in this ISO range for shooting both wide angle or macro.

The RGBBlue System02-2 lights would work well with any cameras having executable image quality up to ISO-6400. Besides the excellent color quality and small size the RGBBlue lights are very robust with excellent build quality. Run time is also quite good for the size of the MB6700B battery module.

The RGBBlue System02-2 video light retails for around \$750.00/£750.00. Anyone looking for a high quality video light should definitely go to the RGBBlue web site or contact a retailer for additional product information and pricing.



Cenote Guide Miki, Dos Ojos, Yucatan Mexico, Acquapazza Housing, 170mm Dome Port, Two RGBBlue02-2 Video Lights, Sony A7R III, Sony FE 16-35mm F/4 at 17mm, ISO-6400, F/9, 1/30th sec.

I would like to thank RGBBlue (rgblue.jp) for all of the assistance with the equipment for this review. The rgblue.jp web site is in English and Japanese for those interested in more information about all of the excellent RGBBlue products.

I would also like to thank Miki Kurimoto Owner of Scuba Freedom in Playa Del Carmen, Mexico. Miki is an



Nudibranch, Puerto Galera, Philippines, Sony A7 III, Sony 90mm Macro, Nauticam housing, One RGBBlue02-2 Video light, ISO-640, F/7.1, 1/320th sec.

excellent guide for all Cenote diving needs while in the Yucatan. Miki can be reached scubafreedom.com, jp.scubafreedom.com for Japanese and at her Miki Kurimoto FaceBook page.

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www.rgblue.jp

www.uwpmag.com

Don't settle for 2nd best



Film - No Filter No
White Balance



Digital - No Filter Manual
White Balance



Magic Filter Manual
White Balance

Digital cameras have opened up new possibilities to underwater photographers. For available light photography manual white balance is an invaluable tool for restoring colours. But when you use it without a filter you are not making the most of the technique. You're doing all the hard work without reaping the full rewards. These three photos are all taken of the same wreck in the Red Sea. The left hand image was taken on slide film, which rendered the scene completely blue. The middle image is taken with a digital SLR without a filter, using manual white balance. The white balance has brought out some of the colour of the wreck, but it has also sucked all the blue out of the water behind the wreck, making it almost grey. The right hand image is taken with the same digital camera and lens, but this time using an original Magic Filter. The filter attenuates blue light meaning that the colours of the wreck are brought out and it stands out from the background water, which is recorded as an accurate blue.

www.magic-filters.com