Newsletter for Week Ending 23rd November 2019

Problems with Amazon Publishing

I received an email from KDP (the Amazon publishing company) stating that the book title metadata for the FZ80/82 User's Guide was in violation of the terms of publishing. Basically what they were saying was that the statement where I said that if you sent me your Amazon order number I would return by email the link to download the free PDF version of the book.

According to KDP - quote "During a review, we found that the following book(s) causes a misleading customer experience because it could be mistaken for a product other than a book: "- unquote!

You can't argue with these people - (I did with a result that my book was blacklisted and removed from sale!).

To get the book re-instated I had to completely go through the publishing loop again. I totally do not get the model that they use for marketing and publishing. For a 200 odd page book to cost £30 (\$30) on poor grade paper is beyond me. It is even more annoying that from this sale price Amazon will get £27.65 to my £2.35 royalty on the book. If I ever get to finish the FZ10002 User's Guide I will be looking at other ways to get the book published or issue it only as a printable PDF file.

Freewell Variable ND Filter Review



Recently, Freewell again reached out to me with the opportunity to test and review their new addition to the filter range for DSLR/Mirrorless CSC and drones – the variable ND filters.

A while back I did a review of their filters for the DJI action camera and more recently the new magnetic quick swap filter system and was quite impressed with the build and optical quality of their products.

Now the variable ND filter is essential for shooting video as it allows you to set the shutter speed to twice the frame rate to preserve the subject motion blur that we are accustomed to viewing with cinema images at 24p. For stills photographers they reduce the number of filters that need to be purchased to cover all scene brightness when we want to create long shutter speeds for silky flowing water etc., or use wide open apertures for reduced depth of field shots.

Getting a good quality filter, one which is neutral in colour and does not cause vignette or cross polarisation artefact, is usually fairly expensive and for something that might only be used infrequently often leads us to purchase inferior product and accept some of the limitations.

Now with the FZ2000/2500 we have built in ND filters which are really useful in shooting video but for other cameras like the Canon EOS M50 or the FZ10002 we have to resort to fitting external filters to achieve the effects that we might want for either stills or video production.



Now the Freewell filters look to be able to provide all these features at about 1/3 of the cost of the leading brands without any quality loss. They are available in 67, 72, 77 and 82mm filter thread but it is best to choose a size which fits your largest lens if you have more than one lens, or camera, that you want to use these with.

You can use conventional step up rings with these filters as they are not part of the "quick swap" range because of the need to have the outer filter element rotate and this would probably not work reliably in the quick swap mount system.

They are "hard stop" filters meaning that there is a physical minimum and maximum setting (so you never get into that cross-polarisation situation) and the actual f-stop attenuation is marked on the edge of the filter.

This feature is really useful for stills photographers as you are no longer guessing as to how much you are reducing your exposure by on the filters that don't have any markings.

The coatings on these filters (9 per side) are scratchproof, dustproof, waterproof and oilproof and I found it almost impossible to leave a fingerprint on them.

In addition they offered with a lifetime guarantee.

The filters are available in the 2-5 stop and 6-9 stop range or they can be purchased as the two pack combination.

The filters have magnetic closure jewel boxes and include a magnetic lens cap to cover the filter when not in use and mounted on your camera lens.



At the moment there is a special price reduction on Amazon to mark the launch of the filters.

You can find out more about the quality and my opinion of these filters in comparison to cheaper brands by watching my video review on Youtube here at.

https://www.youtube.com/watch?v=rD1ggydfkIA&t=4s

Products for Review

I think that as my subscriber base on YouTube reached 50K this opened the gateway for companies to reach out and ask me to do product reviews for them.

I have had to decline the invitation to a lot of them as I don't think that they fit with my channels aims or that they would have wider appeal.

Products like robot vacuum cleaners, automatic fish feeders, beauty mirrors, food products and shopping bags have been offered over the past couple of months.

It is nice to think that they welcome my opinion or like the way that I factually present my reviews but my time is already stretched in too many directions to do these additional videos.

I have purchased a couple of products for my own use which may have a wider appeal and I will be reviewing them on YouTube by the time this newsletter reaches publication date. I may add them to my photoblog reviews page as well if they do turn out to be as useful as I am anticipating.



I also have a toy that I purchased for our grandson's Christmas. From the advert it looked amazing for the price and even had an "app" that could be downloaded to extend its appeal however on unboxing this to install the battery so it would be ready to go when he opened it I discovered just how "conned" I was with the product advertising claims. When I read the reviews on Amazon I could see no negative comments about this toy and just how misleading the advertisement was.

I just wished that anyone who took the time to publish a review did so with a fair appraisal as to the good and bad points rather than just say "children loved it" or " a good toy!"

Needless to say my review will be less than favourable and be very factual at what you actually get when you purchase the product and how the "app" hasn't been fully tested and, in my opinion, does not have any relevance to the actual product. Rant over!

Panasonic G9 Firmware Upgrade

Those of you who have followed this blog for a while will know of my love/hate relationship with the G9. I love the camera and its feature set however I cannot overcome the issue that I have with the "soft release" shutter button.

I have to really concentrate and not rest my finger on this button when waiting between shots otherwise I get numerous foot shots or unwanted video clips!

Anyway Panasonic have now release a firmware upgrade (as of the 19th November) which adds a few more interesting features to this camera which may sway me to using it a lot more than I currently do.

Download from here

Here's a list of the new features that have been added to the Panasonic G9

Improved AF performance

[AF-ON: Near Shift] and [AF-ON: Far Shift] functions have been added.

[AF-ON: Near Shift] preferably focuses on a subject nearby while [AF-ON: Far Shift] preferably focuses on a subject far away.

A Focus Peaking function is available not only in MF mode but also in any AF mode. It is possible to set continuous AF on the live view screen in Creative Video mode or in other video recording modes when the video recording area is displayed.

Animal Detect has been added to AF mode. Utilising Advanced AI Technology, animals, including canines, felines and birds, can be detected in addition to humans.

The focus frame is automatically set on the target subject by analysing the size and position of the target subject in the viewing image.

The camera keeps tracking these subjects even when they turn their back to the camera. It is possible to switch the subject to focus on by pressing the joystick in [Face/Eye/Body/Animal Detect.] mode.

Enhanced video functions

4K 30p/25p 4:2:2 10-bit internal recording is supported.

4K 60p/50p 4:2:2 10-bit HDMI output is supported.

Luminance level for 10-bit video is supported.

VFR (Variable Frame Rate) shooting is supported (FHD 2-180 fps/4K 2-60 fps).

HDR video recording is supported.

V-Log L recording and Waveform Monitor (WFM) are available with the Upgrade Software Key DMW-SFU1 (sold separately).

Other major improvements

[AWBw]has been added to WB mode. [Highlight Weighted] has been added to [Metering mode].

[Exposure Offset Adjust.] has been added to the Custom menu, which enables adjustment of the standard exposure value for all metering modes.

[0.5SEC] has been added for an option of [Duration Time (photo)] in [Auto Review].

AE can be locked with the [AF/AE LOCK] button when ISO Auto is set in M mode.

[MODE1] has been added to the Live View Boost function, which increases the frame rate for smooth image displays to enable easier manual focusing.

[MODE2] has been added to High Resolution mode, which reduced subject's motion blur.

Source information Panasonic Japan

Compact Mirrorless CSC versus iPhone 11 Pro



It's probably true that the best camera is the one that you have with you. But given a choice what would it be?

I had planned to do a full test shoot at Manchester's Museum of Science and Industry (MOSI) between these two devices since IOS 13.2 added Deep Fusion technology to the iPhone 11 and given its low light mode I thought that the Power Hall (which is very dark – usually) would be the ideal venue.

However on reaching MOSI a notice read "the Power Hall is closed for renovation and upgrade until 2021".



MOSI Power Hall under renovation

So this scuppered my original plans. I then thought about the Aerospace hall! However due to the recent heavy rains the roof had been leaking and most of the exhibits were sheeted over to protect them.

This only left the Textile hall but they were running demonstrations so I had to be contempt with just a few quick comparison images.



iPhone 11 Pro 1/33sec F1.8 @ ISO 500



Canon M50 1/80, F2 @ ISO 200 with 22mm lens





The images of the 7070F Mass Spectrometer is a good test to reveal the image resolution captured by the two devices.

The iPhone 11 Pro has done a great job of capturing both the detail and tones in this image.

When the image is enlarged to give over 100% preview the detail in the images are almost identical. The M50 just has the edge however I doubt anyone would enlarge the image this much, let alone print it.





Crops from full images

So it looks like the additional processing made by the Deep Fusion software has increased the resolution and maintained control of the noise. It is a feature which is enabled all the time and there is no EXIF info to show how much has been modified by the process.





Outdoor the iPhone 11 Pro has done a pretty decent job, perhaps a little vibrant but this could be muted slightly in post-production if needed.



Plenty of detail and colour tones in this image at Castlefield Basin

So what am I concluding from this short test? Well it would seem that the iPhone 11 pro has a very capable camera system (albeit the super wide lens is a little soft!) and it is capable of delivering images that most users would be happy to keep.

Providing that you don't want to make large prints (who does anymore?) it is certainly worth considering if you are in a position to upgrade your smartphone.



In extreme low light the iPhone night mode captured this 1/8 sec, F1.8 and ISO 1250.



Enlarged view of the image above showing the remarkable detail and lack of image noise at this high ISO setting.





The DJI OSMO Action camera has been missing the vital interface to allow external audio to be recorded on the device. Now DJI have promoted the 3^{rd} party CYNOVA adaptor (why not their own?) and I purchased one from Amazon at only £22 in the UK. It is available cheaper on Ebay from China but that would mean a 4 – 6 week shipping delay.



Now the adaptor will plug into the USB-C port with the original skeleton frame installed. Some users have reported that the connection is a little loose and they have removed the rubber gasket from around the plug to allow the adaptor to sit deeper into the socket. The adaptor supports pass through power and data connections so you can charge and record simultaneously.

Now I have seen lots of reports about poor audio quality with this adaptor and other reports that state that DJI will be making a firmware change to address this.

Now I didn't experience any noticeable audio quality problems and I used lavalier mics and the new Rode wireless go system to input audio into the camera.

There are no manual gain controls everything looks to be controlled by AGC (automatic gain control).

A small mic symbol appears on the screen to confirm that external mic is in use and it has 3 levels of audio to show the level of audio being recorded.

The recording is, of course, mono with both left and right channels being paralleled up. A lot of people have been disappointed that it doesn't record stereo – but this is an action camera not a studio recording device.

If you want stereo recording then it's more likely that you will record this using a separate audio recorder and sync the tracks in post-production.

I have two reviews of this adaptor on YouTube

Outdoor Audio tests

General review and indoor testing



The Rode Wireless Go is the world's smallest wireless microphone system and one of the most affordable options for anyone wanting to explore the benefits of wireless recording. Like all wireless systems, it consists of a transmitter with a microphone input and a receiver that connects to your camera or audio recorder.

What makes the Wireless Go unique amongst rivals is not just the tiny size of each unit but the inclusion of a microphone built-into the transmitter, allowing you to clip it directly to clothing and use it as a lapel microphone. You can of course connect your own lavalier mic to the transmitter if you prefer, but the built-in mic provides a quick and easy solution. If you plug a stereo mic into this unit its inputs will be paralleled and transmitted as a mono signal to the receiver.

Each unit is powered by a built-in lithium-ion battery charged over USB-C and is good for up to seven hours of operation.

The units employ digital transmission in the 2.4GHz frequency band, pair automatically within 3 seconds of power up and work at up to 70m / 230 feet if in line of sight. Both units cleverly employ clips which match the width of a standard cold shoe, allowing you to slide them directly onto stands or camera hot shoes.

The receiver includes a small display indicating signal strength, audio levels and the remaining battery life of each unit. An audio cable to connect to your camera, a pair of USB charging cables, two wind mufflers and a pouch are supplied as standard.

The wind mufflers attach to the internal mic of the transmitter but are really very loose fit and I would suggest finding a secondary method of fixing like small elastic bands.

Sound quality is very good with an option to reduce the output by -6 or -12dB if the output is too high for your camera pre-amps. It works very well with the DJI Osmo Action camera with Cynova audio adaptor.

There are now circulating rumours suggesting a new version of the very popular Canon EOS M50 may be available in September 2020.

The thoughts are that the camera will employ the new 32.5M sensor of the EOS 90D and Canon EOS M6 II and may include the Digic 8 processor.

Uncropped 4K at 24,25 & 30p is also likely to feature on this camera at launch.

Even without any other changes this will make this camera one of the best compact APS-C cameras capable of 24p uncropped 4K video with a flip out screen and inbuilt EVF.

UK Drone Registration.

From 5 November 2019 any drone over 250g must be registered and labelled with your operator ID.

Until now you've been able to buy and fly a drone in the UK anonymously.

You just had to obey the rules of the UK Dronecode and fly only where you were allowed to.

But by 30 November you must register your drone and pass an online test, of 20 questions of which you must answer 16 correctly, to show that you can fly safely.

In Summary: Drones between 250g and 20Kg must be registered Registrations costs £9 per year Operator ID must be displayed on your drone(s)



I passed the test (18/20) on the first attempt and have now registered my Mavic Pro.

Ulanzi L1 Pro LED Light Versus Lume Cube 2.0



Ulanzi L1 pro

Lume Cube 2.0

The Lume cube 2.0 has lots of features which should make this the most useful portable LED light sources but at £90 in the UK it's an expensive light.

Compare this to the Ulanzi L1 pro light that can be purchase for £20 on Ebay.

The Ulanzi has the same colour temperature at 5500K and produces 300 lux at 1 metre with 4 levels of brightness.

The Lume cube, in my tests, had a lower output 220 lux but has 10 power levels and the ability to be controlled by a Bluetooth enable app on a smartphone.

It also has a flash feature so that it can fire a flash/strobe when an initiating pulse is detected by an onboard sensor.

This does nothing apart from bringing the LED light on to assist with the exposure. The same thing could be achieved by just leaving the light on (similar to the LED flash rings!) Both can be used at depths for diving (slightly deeper with the L1).

Both have internal lithium batteries with the L1 being charged by micro USB and the Lume cube 2.0 by USB-C.

The L1 is supplied with a white diffuser and 19 coloured filters, the Lume cube has a warming filter and a medium white diffuser. The L1 has a 60 degree beam angle whereas the Lume Cube is 80 degrees. Both have ¼-20 threaded tripod mounts.

These are great accent lights or suitable for fitting to action/vlogging cameras to add some additional light on you/your subject.

Overall I've found the Ulanzi LED light a much better option and I've now purchased 3 of these lights with still money to spare!

IPhone 11 Pro in Low Light Night Shots

One of the areas that I was wanting to test out with the new iPhone 11 pro was the low light night mode shots. I had many test images from a couple of years ago shot with various format cameras and lenses so I went out and recreated the same shots using the iPhone to see if there was an appreciable difference in image quality over the Huawei P20 Pro Andoid smartphone. Here are the results.

IPhone 11 images compared to the micro four thirds GX80 with 20mm pancake lens.





They have changed the sodium lamps to daylight LED since the picture was taken on the GX80





The image quality is surprisingly good but any details in the shadows are quite "blocky" Nevertheless for hand held shooting it's a worthwhile camera to use – and of course it's so handy being right in your pocket. The images taken with just the X1 lens hence the difference in field of view between the shots.

Does the lens make the picture?

I had a comment posted on my Facebook page about the fact the images from the Panasonic Lumix FZ1000 mk2 exceeded the quality of the GX7 micro four thirds camera equipped with the Panasonic 14-140 lens.

Now I think there are possibly two explanations for this.

1). The 14-140 is known to be a "soft" lens as it was the first HD lens developed for the GH1 camera and as such was a videocentric lens where resolution is not quite as critical. It was updated a few years back to improve on the sharpness.

2). The pixel density is higher on the FZ10002 so there are more pixels in the image creating a higher resolution image.

I wanted to validate this so I tested the two cameras FZ10002 and my 16M sensor GX85 the same sensor as the GX7.



Using the chevron van to focus you can see the "softness" of the 14-140 lens compared to the FZ10002.

To prove the lens I switched over to my Olympus 40-150mm Pro lens on the GX85



Enlarged section from the GX85 image.

The results were certainly conclusive and that to achieve the highest resolution from these sensors the lenses that form the image must be capable of resolving high levels of detail.

Switching cameras to the higher pixel count (21M) of the Panasonic G9 again showed the poor image quality of the Panasonic 14-140 lens





Cropped image from the GX85 with Olympus Pro 40-150mm lens at 140mm

For the next newsletter I'll be exploring the myth? that larger pixels give better low light performance by comparing a 12M micro four thirds sensor to a 21M sensor in both good daylight and poor, low light, situations.

I'll also be looking at electronic image stabilisation compared to optical stabilisation and why cameras like the GoPro and DJI Osmo action cameras give perfect stabilised images.

I hope to finally shoot the last video in the Bridge camera tutorials series – shooting video!

Until the next newsletter due on the 21st December 2019.

Graham