

Hospital Test Results

Firstly, thank you to all those of you who sent messages of best wishes for my recent colonoscopy. Actually it was quite an experience. I elected not to have any anaesthetic as I wanted to drive home after the procedure. I watched in awe as the camera made its way up and around the lower bowel into the large intestine. It was uncomfortable at times but not to the point where it was painful. The only thing that they could tell me was the fact that I had a number of diverticula in the large intestine. However they said that over 70% of people of my age would also have these and it is only when these turn into diverticulitis that there would be any problems. They took 12 biopsies on the way back out and the results should have been back this week. I may have to do some chasing up for these results. But they do say no news is good news - I may have been contacted if there were any cause for concern. I still have to meet with the referring consultant to discuss the next steps as I don't think that this procedure showed up anything that would relate to the problem that I am experiencing. As they say, work in progress!

Freewell Magnetic Quick Swap Filter System Review



Prior to the worldwide release of this new magnetic quick swap filter system from Freewell I had been approached by them to do a review of this new system and was in a non-disclosure agreement before this release. I had the opportunity to test out the system and feedback my comments prior to the release of this new system.

Although this is not a new concept, it is already in use in a similar mode from Manfrotto – the Xume system.

Essentially the filter system comprises of a mount which screws into the lens ring and it then accepts a magnetically attached filter.

This filter can be one of a circular polarising filter, a ND filter, a ND hybrid filter which is a ND filter and combined circular polarising filter or a Clear Night Filter (which has been spectrally coated to reduce the yellow sodium light glow in the night sky).

The lens mount ring also contains a 16 layer coating UV filter (8 front and rear).

This is said to be of very high optical quality and not contribute to image quality reduction. So, this was the first issue that I fed back to Freewell as I would suspect most “Pro” photographers would not like to add any additional air/glass/air components to their prime lenses etc., for fear that this would add to ghosting and image flair or loss of contrast.

Freewell replied that they were mindful of this and would look at the reaction from these photographers following the press release.

If necessary they could release a mount without the UV filter.

This would also help reduce the initial cost of purchasing the new system. In their promotional video they also suggested that if you wanted to use your existing filters you could simply screw them into the lens mount adaptor or into the threads of an attached filter.

I reported back on this as well as it seems so counterproductive to have to screw the filter into the new mount and that they should adopt the Xume idea of a magnetic ring which could be attached to the filter and then it would match the rest of the system being magnetically couple and thus become part of the quick swap system.

I also found that the magnetic attraction between the lens mount and filter or lens mount and the supplied magnetically attached lens cap to be quite strong.

However if you attached a filter to the lens adaptor and then attached the lens cap the attraction between the filter and lens cap was much weaker (presumably the two magnetic couplings were in fact cancelling each other out.

In fact on a later outing with the lens cap attached this way I did loose the lens cap – probably dislodged as I was making my way up to a waterfall through bracken.

Freewell acknowledged this problem and were already working on a solution.

New filters in various lens sizes are promised in the near future as well as some magnetic step up rings for those wanting to use the filters on a number of lenses.

The filters are quite expensive (£150 \$150) and I would suspect that most professional photographers already have the filters that they require.

Whether this quick swap system is enough to tempt them to update to this system I do not know. I, personally, would be happier having the option, like the Manfrotto Xume system to be able to adapt my existing, expensive filters, rather than purchase a complete new set.

In my lens flair tests I could not induce any addition flair when shooting directly into the light than was already in existence nor could I see any effects with or without the UV filter on distant landscapes which tend to have a blue haze.



The Manfrotto Xume System – Lens adaptor and Filter adaptor system

I haven't checked on compatibility between the two systems – I have a 72mm filter adaptor on order to test it. The Xume system also retails for a considerable amount less. Here in the UK the lens adaptor for 67mm was £26 and the filter adaptor £11.

If the two systems are compatible then I will have a system that will work with my existing filters otherwise I will install the Xume lens adaptors as the cost to upgrade will be too great unless Freewell deliver the lens adaptors very quickly.

UPDATE... No the two systems are incompatible in both size and magnetic coupling so the Xume system cannot be used as a cheaper entry into this system.

Here's my review on YouTube <https://www.youtube.com/watch?v=l6UEzmY0nKA>

Using Single Area AutoFocus in the iA+ mode with Panasonic Lumix Bridge Cameras

The normal autofocus method in the iA+ mode on Panasonic Lumix Bridge cameras like the FZ300/330, FZ80/82 and FZ1000 is to use the 49 area method or use face detection or subject-tracking mode.

If we want to set a particular area to be in focus then by use of my short-cut method you will be able to set the focus point using the camera 4-way navigation buttons.

The process DOES NOT Work on the FZ200 as it does not have the option to bring up the exposure meter in iA+ mode.

On the FZ300/330 use the Fn2 button to bring up the exposure meter scale instead of double clicking the back control dial.

This video illustrates how to do this.

<https://www.youtube.com/watch?v=BUXqizQ13a4>

Adding Audio Pass Through to the Tascam DR10-L

In the UK the Tascam DR10 is available as the DR-10C which has built in audio pass through so that you can record audio on the mini recorder AND simultaneously on an attached camera (wireless transmitter). However due to alleged copyright infringement the unit is sold in the USA as the DR-10L model which is just a standalone recorder without the pass through facility.

This means that you cannot record the identical track on this recorder at the same time as the track recorded on the camera. In the USA the DR-10L is supplied with a lavalier microphone whereas the DR-10C does not and you use the lavalier that is supplied with the wireless microphone that this unit is designed to partner. With this mini recorder between the microphone and the transmitter it means that any wireless RF drop outs are not a problem as the mini recorder is capturing an identical audio track as well as a safety track which is -6dB to the main track. This allows you to recover a section of audio if the audio reaches limiting levels.



The Tascam DR-10L and DR-10C units

Both of the units have almost identical firmware for the main elements of the recording modes.

The only essential difference is that the pass through components have not been fitted to the DR-10L and the display powers up stating it is a 10DR-L unit.

I have come up with 3 solutions if you are using this device in the USA and want to add this backup audio facility in your workflow.

The first one is the simplest to achieve and requires no construction or soldering and will cost just a few dollars to implement.

The only minor inconvenience of this first method is that the audio captured by the camera is mono. This can be easily remedied in post-production.



This first method uses a 3.5mm headphone splitter. The TRS plug is connected to the input of the TR10-L and the input from your TRS microphone plus into one of the 3.5mm Female sockets and the other socket is connected to your camera via a short 3.5mm TRS-TRS cable.

The second method requires a little DIY construction/soldering to make it but it does have the advantage that the output to the camera has the audio paralled to both the left and right channel inputs.



Method 2 showing the stereo channels active

The unit is basically two 3.5mm stereo TRS panel mounted sockets and a 3.5mm stereo lead which is pre-wired and is cut to a suitable length (it is derived from the same type of 3.5mm TRS-TRS cable that is used to connect the unit to the camera audio input).

The two sockets are wired in parallel with the tips and sleeves of the sockets soldered together and then the wire from the 3.5mm TRS cable is connected so that its tip is connected to the tip of the sockets and the sleeve is connected to the sleeve of the sockets.

So essentially the two 3.5mm sockets are in parallel with the 3.5mm TRS plug on the connecting cable. On one socket designated as the output socket the tip is connected to the ring of the socket – thus paralleling the left and right channels.

The third option requires the unit to be populated with the missing components and the top plate drilled. Obviously this is the best solution however it will invalidate any warranty on the unit and does require a little more experience of working with a soldering iron and electronic components. I will be doing a video of this once all of the components arrive.

With all the solutions the extra facility of capturing the same audio as the camera plus the ability to monitor the audio being captured adds another level of confidence if you are recording a serious production such as a wedding ceremony etc.

I will have a video showing how this system works on YouTube very shortly.

Lavalier Microphones for better audio on smartphones.

Following a couple of comments on the video review of the FeiyuTech vlog pocket gimbal about the lavalier microphone that I had used for that video I decided to make a short video explaining how to connect the various types of lavalier microphone to the current range of both Android and IOS devices.

As nearly all smartphones now support a headset which comprises of earbuds and a microphone this dictated that a connection consisting of 4 connections needed to be made. Traditionally these headsets have always has a 3.5mm jack plug to connect to the smartphone. Two wires connecting the left and right earbuds, a single wire for the microphone and then a common ground for the earbuds and microphone.

The need to get better audio as the capabilities of the smartphone began to improve and encompass 4K video recording led to the introduction of microphones specially designed for this purpose. The only complication was the move by Apple to change the long standing 3.5mm jack socket with the later, electrically reversible, lightning connector. The Android devices also started to implement USB-C to facilitate faster charging and this meant that a new audio port had to be created for use on the USB-C socket.

To adapt from 3.5mm, 4 connection (known as the TRRS system or tip-ring-ring-sleeve) each company had to supply a necessary adaptor to allow the use of these headsets and new microphones to be connected.



The Lightning to 3.5mm



USB-C to 3.5mm

The choice of lavalier microphone can be quite a challenge to get one with the right plug configuration as there are both the TRS (the older standard) and the newer TRRS one. The TRS microphones generally will not work with these adaptors. They need a TRS to TRRS adaptor.



This TRS to TRRS adaptor will accept the TRS plug of a lavalier microphone and adapt it to the TRRS plug requirements of the later smartphone. Use the socket marked with the microphone symbol. Headphones or earbuds can be connected to the other socket marked with the headphone symbol. Plug this into the smartphone adaptor and then your microphone into this.

The operation is far easier if you have a TRRS lavalier microphone as this will plug directly into the smartphone audio adaptor cable.

In my YouTube video I test a few TRRS lavalier microphones ranging from the lower end models to mid-price range. Obviously the results are quite subjective depending upon the need of your recording. If you just want to capture better audio for vlogging etc then probably the AUFGELD microphone will be a good choice.

Heres the link to this video comparison

<https://www.youtube.com/watch?v=nAUGFRYFUL4>

If you already have a TRS lavalier microphone then in my second video in this mini-series I demonstrate ways of connecting these to the smartphone. In this video I also suggest ways of connecting XLR microphones to your smartphone.

This is the link to the second video <https://www.youtube.com/watch?v=NYhwt7Cz304>

Canon Announce the EOS M6 mk2

Canon have just announced two new cameras this week. The Canon 90D which is a APS-C DSLR and the EOS M6 mk2 an APS-C mirrorless camera. Both have the same sensor and Digic 8 processor.

Setting aside the 90D as it still uses live view on the rear LCD screen for monitoring video capture (or you could use a small HDMI monitor plugged into the HDMI port) because of the mirror still employed. In contrast with the EOS M6 II being mirrorless the image can be viewed directly on the LCD or on an accessory EVF.



Featuring a 32.5-megapixel APS-C sensor, maximum continuous shooting speed of 14fps (30fps maximum RAW burst mode), 4K Uncropped Video, Dual Pixel AF, Eye Detection AF and a Digic 8 image processor. It has a mic input but no headphone monitoring facility. There is also a kit with the EF-M 15-45mm f/3.5-6.3 IS STM Lens and EVF-DC2 Electronic Viewfinder.

This model becomes the new flagship model in the EOS M line up overtaking the EOS M5 and M50. It's a pity that there isn't a built in viewfinder like the M50 or a fully articulated screen. I'm hoping that the same sensor will be added to the M50 as that would make the ideal APS-C camera if it supported all the features of the M6 II. In the UK at its launch, late September it will cost £869 body only. If you want the EVF and 18-55mm kit lens it will cost £1199.

AI STRUCTURE IN LUMINAR 4 OFFICIALLY ANNOUNCED

AUGUST 27 Press Release

The beauty is in the details: Luminar 4 introduces AI Structure tool Luminar 4 to offer content aware Structure tool that helps add detail to a photograph automatically without negatively affecting people or other subjects.

Today, Skylum has announced another feature for its upcoming Luminar 4 software, set to ship this fall. AI Structure will take advantage of content aware technology, enabling photographers to add detail and structure only where necessary.

The announcement comes on the heels of Skylum introducing the development of Luminar 4 and AI Sky Replacement, the first tool of its kind to help photographers replace skies automatically. Users can expect to see additional machine learning tools present in Luminar 4, in addition to an easy to use interface and sensible workflow that photographers will feel right at home with.

“We’re really excited to see Luminar 4 develop more as we approach our fall launch date,” Said Alex Tsepko, CEO of Skylum.

“With the new AI Structure tool, we know photographers will love the control and content Aware technologies that let them enhance their photos like never before.”

Why AI Structure?

Past methods of adding more Structure, details or clarity to images meant that photographers would get unpredictable results with very little control. If a person was present in an image, it would add more detail to their skin, which was often unwanted. Traditional Structure tools often added noise and halos to images. For photographers, it meant fine tuning the Structure controls and even masking out parts of their image, making for a long and tedious editing process.

With the AI Structure filter, photographers can take advantage of content aware algorithms to automatically enhance a photograph’s Structure without negatively impacting certain objects. The new machine learning technology boosts hidden details and improves local contrast, making for results that are both expressive and natural.

How does it work?

AI Structure in Luminar 4 automatically identifies objects like people and their faces, skin, sky, buildings and more, and improves them intelligently, instead of globally across the photograph. It adds detail and clarify to areas that otherwise wouldn’t have much, boosting the structure and making for a much more pleasing image.

What this means is that instead of adding Structure to an entire photograph, it selectively does so, meaning photographers no longer have to mask or brush out the effect.

Photographers can also take it an extra step further, with special “Structure Boost Technology” controls, allowing users to make extremely detailed photos for creative image looks.

Link for the pre-order and more information for [Luminar 4](#)

You can also take advantage of an early bird special via my [affiliate link](#) and save £62 for a limited time only.

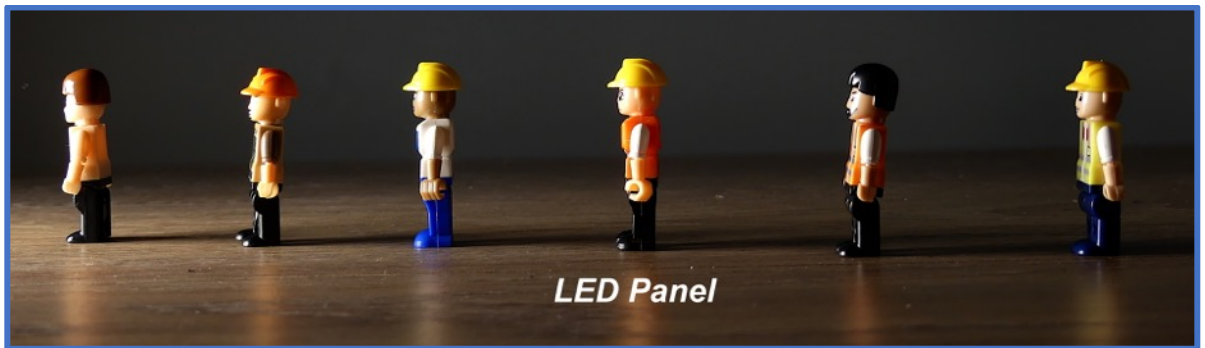
Light Fall Off from Fresnel Light Panels versus LED Panels

There is an interesting property of light sources fitted with “Fresnel” lenses. Now we can’t change the laws of physics and we know that as the distance an object changes from a light source by twice the distance the light falls by a factor 4 times (or 2 f-stops).

This is due to the “inverse square law” equation which simply states that:

Intensity is Proportional to 1 Over Distance Squared

If we set up a regular 12 inch square 600 LED light panel with Diffuser and set up some objects at fixed distance intervals to it then if we photograph it you will see how the exposure varies across the image from front to back as illustrated below.



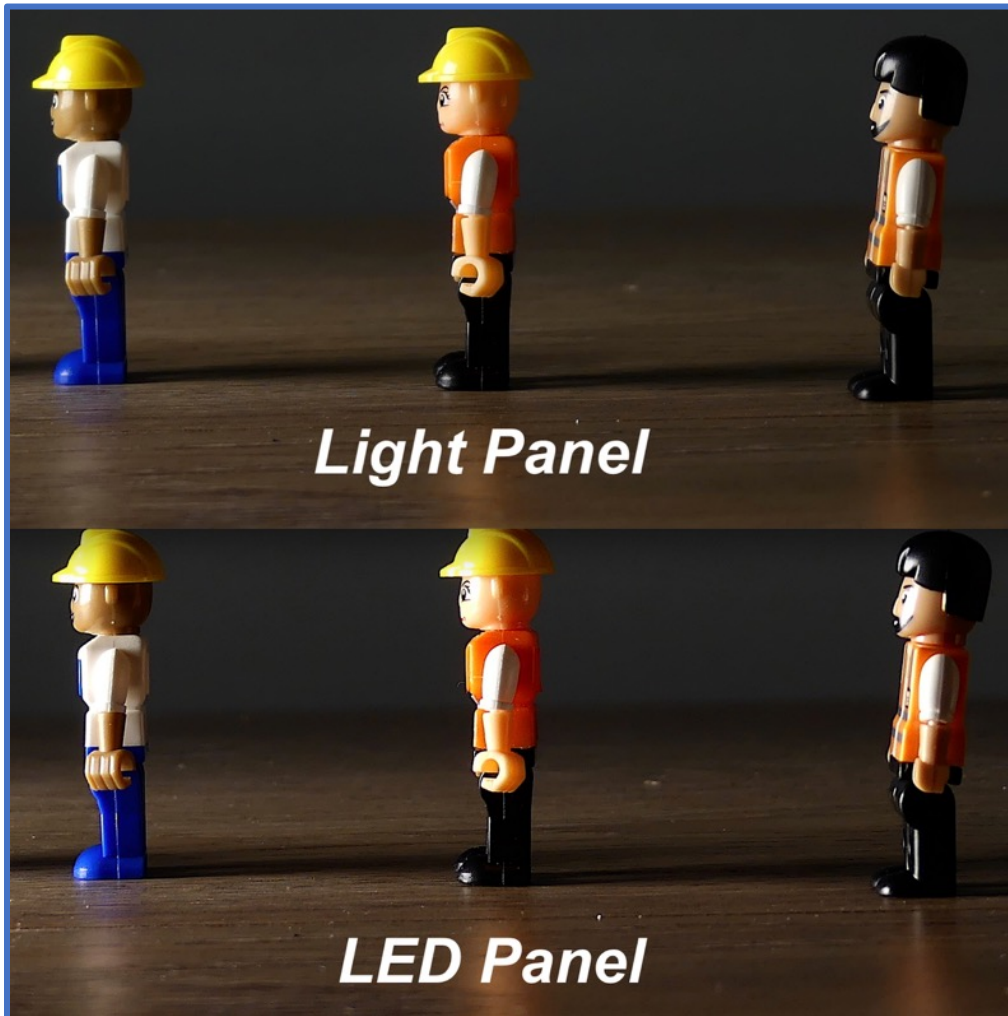
If you look at the exposure at the character nearest to the light source it is slightly overexposed as I set the exposure from the fourth characters position.

Now compare this to the same photo taken with a 12 inch square Fresnel light panel at exactly the same distance from the first character.



The light “appears” to fall off less across the image from front to back because of the fact that the Fresnel lens “sets the apparent source point” of the light source much farther back than it is in reality.

The result is that the relative distance of the light source to each of the characters in the image is less and hence the intensity change of the light at each of them is reduced.



With an enlarged view it might be easier to see the relative exposure across the three central characters.



The light panels come in various shapes and sizes and can be daylight or warm white. They are normally ceiling mounted in suspended ceilings to create very even distribution lighting.

You can also get them as various size tracing light boxes. If you have a large iPad then if you set the screen to display just a plain white background you have a very portable light source for casual product photography etc.

User Expectation versus Delivered Quality with Panasonic Lumix Bridge Cameras

I had an “interesting” discussion with one subscriber during the week about the “terrible” quality that her FZ80 was producing and when trying to shoot closeups got nothing but error messages and out of focus images.



Close up image from the FZ80. ISO 80 @ F5.6

Let’s make no excuses here for the FZ80/82 or any other 1/2.3 inch sensor bridge camera. These camera with such small sensors (and especially the higher density pixel density like the FZ80/82) do need to “receive” sufficient light at the sensor in order to use the lowest ISO’s for both lower image noise and higher dynamic range.

In many cases this will mean good daylight or artificial light conditions where the ambient light allows hand held images to be captured with at least a shutter speed of 1/30 sec at the shorter focal length (20mm EFL) or 1/1000 sec at the longer focal length (1200mm EFL).

Once the ISO starts to exceed ISO 400 the noise reduction algorithm of the camera starts to eat away at image detail making the images look soft and noisy.

If you keep within these guidelines you WILL GET some very good images from this camera.

When it comes to shooting closeups what a lot of users do not appreciate is that the minimum focusing distance – the distance between the camera lens and the subject – will depend upon the focal length set by the zoom position. If the camera is set to the **AF macro mode** then in this chart you will see how close the closes focus distance will be for a given focal length (displayed on the LCD). The more zoom the further the camera to subject distance must be otherwise you will often here an audible warning that the camera cannot focus, or in some cases, believes focus has been achieved but it is actually out of focus!

Lens Focal Length	Distance subject to camera	
20mm	1cm	Lens touches subject!
50mm	16cms	
100mm	29cms	
150mm	32cms	
200mm	80cms	
300mm	84cms	
400mm	93cms	
600mm	127cms	
1200mm	153cms	

The distance is measured from the subject to the centre of the mode control dial which is approximately where the sensor focus point is.

If the camera is too close you will hear the familiar focus error beep and see the minimum and maximum distances indicated on the screen.

A Really Basic Guide to Photography With Bridge Cameras

I had a number of emails and comments on the tutorials and user guides to suggest that these are too complicated to understand to some people who have just bought cameras like the FZ80/82 and the FZ300/330. There appears to be a need for some very basic guide to just taking photographs or video and how to replay them in camera and on personal computers.

Now I'm prepared to create such a short course if there is enough need and that's where I need your input please. Do you think that there is a need? Did you find it difficult to learn how to use the cameras from my tutorials? If you could just spare me your thoughts on this by returning an email I would be really grateful. [My reply to Graham](#)

FZ10002 Supplement

Now that summer has left us behind here in the northern hemisphere and the pull on my time for outdoor & gardening is also diminishing I will be spending some time writing a supplementary guide to the FZ1000 Mk2 or as it is known FZ10002. I'll have an update in the next newsletter of the progress.