



Putting on the Blinkers, EV, Spot Metering and Exposure Lock

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Some of us briefly spoke about histograms and blinking highlights so I thought a discussion on this might be helpful for the club members who are newer camera owners.

Below is a detailed discussion but here is quick abstract for those who don't want to read my long winded explanations: To keep it simple, the use of the highlight warning blinkers can be a quick way to show areas that are at risk of overexposure. The use of the EV compensation is an easy method of adjusting exposure while still in program, aperture, or shutter preferred modes and can help you adjust the exposure not only when you have too many highlights but also when the scene turns out too dark. This is the little button on the camera that has the "+/-" marked on it. Spot metering (and center weighted metering) often is a way to get good exposures when in difficult situations such as performers on a stage that are lit by a spotlight. Exposure and focus lock are indispensable in certain circumstances. Experimentation is the key, because the histogram and the highlight blinkers both are just ways to show areas that are at risk of poor exposure and they have their limitations. You can't put too high a price on knowing how your camera performs.

Now, the long winded version:

Histogram vs "the blinkers"

The histogram is a way for a digital camera to display exposure information in a graphical format. It's that square display that looks like mountain peaks on your LCD screen. I know people who constantly refer to their histogram to check the exposure, but honestly I find it very difficult to make much sense of it when walking down the sidewalk or in the middle of a live music performance. I want a method where I can quickly look down and judge both exposure and focus without too much fiddling with buttons.

What I use every day is something that many of us call "the blinkers" and this is a very easy method that will alert you with blinking lights on the LCD review for areas that are at risk of overexposure. Quite often these areas are not apparent on the little LCD screen without an indicator such as this.

Results of a bad exposure (other than the obvious)

Exposing with a digital camera sensor is very much like shooting a higher contrast slide

film that you can never change. Print film had a characteristic where the highlights would maintain detail as it gently rolled over to pure white however digital tends to make an abrupt jump. What you need to know most of all is that once you overexpose the highlights, then there is nothing at all that you can do in order to get back natural detail. Conversely, if you *under* expose the scene by too much, then you can often recover detail from the dark shadows by making the image lighter in post processing but you will cause a whole lot of noise in the darker areas that may look ugly in an enlargement. It may, though, look perfectly fine in a 4x6 family snapshot. Film grain can be beautiful but digital noise is ugly more often than not. So, it is always best to get the exposure as close to correct as possible at the moment of capture but certainly the worse sin of all is overexposure. So, we'll focus most of our effort on this issue.

Turn on the blinkers (but don't shut your eyes)

Most DSLRs and some digicams offer this blinking highlight warning feature. Often the camera will blink bright white off and on for those areas but some cameras will use color in order to catch your eye. Usually this feature is not something that is turned on as a factory default because it can be annoying in the beginning, so you may have to check the manual for your particular camera model. It will take some time to get used to a scene that blinks at you when you've become accustomed to a pretty video display of your shots that you can show your friends and family. If a scene is blinking, though, you need to be paying attention to see if this is exactly the exposure that you expected. It may be or it may not be and then it will require some action. As Larry said at the last meeting, it is easy to get fooled by the tiny screen and you need all the help that you can get.

To blink or not to blink, some examples

I mainly look for blinkers that occur in vital areas of the scene that may be distracting. You should ask yourself if the overexposed highlights take away from the composition or are they a vital component of it. The eye is tolerant to overexposure in certain areas and, in fact, an image may appear much better when you allow blown highlights in parts of the scene where it will not shout at the viewer as being something that is wrong. In certain scenes, the fact that a backlight is blown out could be a key element in making it work. So, the use of the blinkers is just a tool to let you quickly decide if you've captured what you want or not. The goal is *not* to always shoot a scene that is free of blinking highlights, the goal is to take control of the image exposure to make it what you visualize.

Let's suppose that you photograph a scene with a pretty blue sky with fluffy clouds. On the tiny screen, the scene looks gorgeous. Back at home, you see that many of the clouds don't have the fine detail that we all love to see when we're outside. This is an example where the blinking highlight warnings would work well and would have given you a tip to decrease your exposure just a tad, even though the LCD provided you with a gorgeous scene.

Here is a scene that fits the issue of controlling the highlights of the sky. ([click here](#)) I underexposed the scene by 1 full f-stop with center-weighted metering on the building. By paying attention to the blinking highlights of the sky, I was able to capture most of the detail while adding mood to the shot. In post processing, the midtones of the building and the foreground were lightened. Doing an autopsy on the photo now, after a year and a half, I think a more proper exposure would have been -1/2 or -2/3 stop below normal, as the version that I linked to shows excessive noise in the storm cloud whereas another file

that I have on my hard drive shows a tad too much highlight clipping at -1/3 stop. Somewhere in between would be a happy medium.

In my photo of a 1970ish hotel room in Cleveland Ohio ([click here](#)), I wanted to let the highlights of the window blow out to a bright white with no detail so that the emphasis would be shifted to the table and chairs. I put the camera on spot metering and made several exposures while metering on the chairs. For this scene, it would be your intention for the window to be flashing the overexposure warning; in fact you should be expecting that and therefore questioning your exposure if it doesn't. Once you get the exposure of the chairs correct then it's a simple thing to take the image in post processing and blow out the window highlights even a bit more if that's what you want. It's personal taste whether you like such a thing or not, but it's always exciting to have a photo turn out exactly how you had it envisioned in your mind.

Some limitations

There is some limitation to the blinkers and it's good to understand how something works. Digital images are composed of Red, Green, and Blue colors and these are blended together to make all the colors of our images. There are cases and scenes where your camera could overexpose the red channel, for instance, but not the green or blue, and it would not show the blinkers. If this happens, then your shot of a red rose or a red shirt may not have the detail that you had expected even if the LCD display looks great and the blinkers are not going off. Some camera models will display the histogram and blinkers for each of the 3 color channels, so it really is a matter of getting to know the operation of the camera. Another limitation is that the histogram and blinkers are based on the camera-rendered JPG which the onboard processor makes from the RAW exposure. If you have the camera set to save the images in RAW format and do your own conversion and processing, then the histogram & blinkers will not be entirely accurate although they still will be a good conservative guideline. This is something for a more advanced discussion but it's safe to say that using the highlight warning blinkers is a good first step in understanding and controlling digital exposure but there are also other things to consider that may be helpful later on.

OK, I've got a lot of blinkers, what do I do?

Once you've decided that something important in the scene is overexposed, such as details of your favorite sky or the face of a performer, and then you need a way to fix it. There are many ways to fix the exposure, so let's talk about 2 approaches that are pretty easy.

Most cameras have both matrix metering and center weighted metering. Many also have spot metering as well, something that I find pretty useful and that you should consider when buying a camera. Matrix metering is a complex method where the onboard computer tries to figure out the proper exposure of the scene. Some cameras do this better than others but this technology is evolving all the time and constantly gets better with each generation of new cameras.

The program mode and matrix metering can be your friend in times of tough exposures but don't let them sit in the driver's seat while you snooze. If you find that the exposure is pretty close but you have an indication that maybe you've lost some detail in the clouds or a face (which you can see via the blinking highlights), and this detail is important to the scene, then one of the best tools to fix this is the EV compensation feature.

The Exposure Value Compensation (EV) is an important tool and a very easy way to tell your camera that you want to change the program setting to allow an overexposure or underexposure. You get to select just how much of the change is needed and then the camera will apply this to the normally calculated settings. The EV compensation generally ranges from plus or minus 2 full stops with the change increments being either 1/3 or 1/2 stop. Often, you will only have to dial in maybe a positive or negative 1/2 stop to bring things under control but sometimes a little more is in order.

Here is a photo of the EV button on a Nikon [\(click here\)](#). Typically, you hold the +/- button in while turning your wheel to select the fractional amount of exposure that you want to add or subtract. Check your manual for more details.

If you find that you have a large number of highlight blinkers in parts of the scene that are important to you and that negative EV will not correct this, then it may be time to change metering methods.

A good example of this is when my son and I were at a Jimmy Buffet concert last summer. [\(click here\)](#) I brought my pocket camera with me in hopes that I could sneak it in. They did an empty-the-pockets search and still let me go in with it, though I didn't see anyone that got through with a DSLR. We were back from the stage some and every shot that was made with matrix metering ended up with Jimmy looking like a white angel so I made a quick change to spot metering. My next shot was a lot better but I had still lost detail in his face so I eventually dialed in a -2 EV which told the camera to underexpose the scene by 2 stops and I had a photo with detail in Jimmy's face. With pocket digicams, the main limitations are both higher noise and smudging from noise reduction (NR) that the camera tries to perform in order to reduce this noise. A conversion to a toned black and white seemed to make this scene much better, at least to my eyes, and I was able to make a record of a great concert that my son and I really enjoyed.

Lock that exposure

Another tool that will help you in proper exposure of tough situations, such as the stage show above, is the exposure lock function. This is pretty much a universal feature and you need to learn how your model works in order for exposure lock to be effective. It also helps to have switched to center focus if you need to use focus lock. For most models, if you are on spot metering and center focus, you can lock focus and exposure by getting a good center aim on the subject and then pushing and holding the shutter button half way down until you get a good focus/exposure lock confirmation (often it beeps or flashes a square in the viewfinder). Then, without releasing the button, you move the camera to recompose the scene and push the button the rest of the way to trip the shutter. Camera models have various default setups but most of them will allow you to modify the setup menu to work in this way, which tends to be the traditional way of doing it.

The summary (finally)

I've often been hindered by bad exposure because I love to shoot photos in low light that has a wide range of bright light to dark shadows- much more than the camera will handle. One way of handling exposure when time is short and the environment is changing is to look at the LCD preview to see where any blinking highlights are located as well as to get a judge of the overall exposure. After that, I'll dial in some negative or

positive EV (exposure compensation) and reshoot the scene if needed. If I'm in a special circumstance where the exposure is far off and the EV won't correct things, I'll switch to spot metering and lock my exposure to the trouble areas before shooting the scene and then dial in EV if needed. So, it pays to know where the EV button is located, as well as the spot meter switch and how to lock your exposure. (And don't forget to reset everything back to your normal settings when you're finished!). Shooting RAW and using the histogram may be the best approach, but using the blinkers and shooting JPGs certainly has an advantage in simplicity and speed that will work in many situations.

Hope this helps,

Mark