

A Guide to using your first DSLR camera

So you've bought yourself a DSLR (Digital Single Lens Reflex) camera and, you find you are intimidated by the number of buttons and dials, and by the manual that looks like a novel, it can be very tempting to just switch it onto 'Auto' and start shooting. If you're fine with that then you've bought the wrong camera. A DSLR is for those who crave the creative control and freedom to choose for yourself. But where do you begin?

If you're a beginner who is unsure of how to make the most of your camera, then read on. This is a brief guide to help you take your camera off auto, and take control of your DSLR. But you're still going to have to read your camera manual, we won't explain every last setting in great depth, but we'll cover enough of the basics to get you in control of your camera, and you can then beef it up by reading your manual.

In Article 1 we covered Shooting modes and Understanding ISO, here in article 2 we'll take a look at;

1. The exposure triangle
2. Metering

1. The 'Exposure Triangle'

It's important to note that aperture, shutter speed and ISO (that we discussed in article 1) are all part of the 'exposure triangle'. They control either the amount of light entering the camera (aperture, shutter speed) or the amount of light required by the camera (ISO) for a given exposure.

They are all linked, and understanding their relationship is crucial to being able to take control of your camera. A change in one of the settings will impact the other two. So if we consider a theoretical exposure of ISO 400, f/8.0, 1/10th second.

If you wanted to reduce the depth of field, by using an aperture of f/4.0, you would be increasing the size of the aperture by two whole f/stops, therefore increasing the amount of light entering the camera by a factor of 4 (i.e. increasing by a factor of 2, twice). Therefore we need to balance the exposure, you could do any one of the following:

- Situation 1: Reduce the shutter speed by a factor of 4, i.e. to 1/40th second.
- Situation 2: Reduce the ISO by a factor of 4, i.e. to ISO100
- Situation 3: A combination of the above, shutter speed by a factor of 2 (to 1/20th second) AND reduce the ISO by a factor of 2 (to ISO200).



Original

	Aperture	Shutter Speed	ISO
-2	f/16	1/40	100
-1	f/11	1/20	200
0	f/8	1/10	400
+1	f/5.6	1/5	800
+2	f/4	1/2.5	1600

Situation 1

	Aperture	Shutter Speed	ISO
-2	f/16	1/40	100
-1	f/11	1/20	200
0	f/8	1/10	400
+1	f/5.6	1/5	800
+2	f/4	1/2.5	1600

Situation 2

	Aperture	Shutter Speed	ISO
-2	f/16	1/40	100
-1	f/11	1/20	200
0	f/8	1/10	400
+1	f/5.6	1/5	800
+2	f/4	1/2.5	1600

Situation 3

	Aperture	Shutter Speed	ISO
-2	f/16	1/40	100
-1	f/11	1/20	200
0	f/8	1/10	400
+1	f/5.6	1/5	800
+2	f/4	1/2.5	1600

Aperture, shutter speed and ISO are all influence your exposure, and they are all linked. It's a case of balancing these factors to achieve your desired results.

It's important to understand that they are all linked, and so changing one setting, will require a change in another. Understanding the relationship that ISO or aperture has with shutter speed, and knowing the practical implications is a big step in mastering your DSLR .



2. Metering

Everything we've discussed so far has related to how the camera calculates the exposure depending on the amount of available light, but what is it actually doing?

When taking a photograph, using any form of automatic or semi-automatic mode (e.g. aperture priority mode, shutter priority mode, auto-ISO etc) the camera will try to calculate an 'average' exposure. It assess the entire scene, both light and dark areas, it will then determine the exposure so that all of the tones within the entire image average to 18% grey – called the 'middle' grey.

This is metering, and it is the reason that if you point your camera at a bright white scene, such as a snowy landscape, and take a photograph the resulting image will always appear darker than our eyes see it. Similarly, if you point your camera at a really dark scene, such as a low-lit room, and take a photograph the resulting image will always be brighter than you or I see it.

The scenes light levels are always being averaged by the camera and most of the time that results in the image appearing to be correctly exposed. However, you can control what areas of the scene are being assessed by the camera in order to influence the way in which the exposure is metered.

There are three main metering modes that you can choose from:

Average – The camera will assess the tones across the entire image from corner to corner (as mentioned above), and expose the scene to 18% grey from that assessment.

Centre-weighted – The camera weights the exposure reading for the area in the centre of the viewfinder that can total up to approximately 80% of the scene, ignoring the extreme corners of the image.

Spot metering – The camera will use a very small area of the scene, typically a small circle in the centre of the viewfinder that totals approximately 5% of the viewfinder area. It will make the assessment of dark/light tones in this area and expose the entire scene to 18% grey, from that assessment.

As a beginner: either average or centre weighted metering are a good starting point. They will both provide a fairly consistent measure of the exposure required and, if you stick with one mode for a period of time, you will soon begin to understand when a scene will be under exposed (i.e. too dark) or over exposed (i.e. too light) compared to how you see it with your own eyes.

So you've taken your shot and the scene is under/over exposed, what do you do? This is where exposure compensation comes in.



Exposure Compensation

This is generally found on a small +/- button near the shutter, this is one of the most useful functions to learn how to use. It allows you to either increase or decrease the camera's default meter reading to account for the actual brightness of a scene.



If a scene contains primarily bright tones and is being rendered too dark, for example, a bright white snow scene (that will typically be reduced to 18% grey by the default metering system), you can apply positive exposure compensation to let the camera know that the scene should be lighter than middle grey.



A snowy hillside. Left: Straight out of camera, with the snow and sky caught as grey. Right: With +2 stops exposure compensation (added in post processing). The bright snow caused my camera to underexpose this scene by nearly two stops, which could have been corrected by exposure compensation in camera.

If a scene contains primarily dark tones and is being rendered too light, for example, a dark night scene (that will typically be increased to 18% grey by the default metering system), you can apply negative exposure compensation to let the camera know that the scene should be darker than middle grey.