



MASTERING : Aperture



## WHAT IS APERTURE?

Your camera's aperture controls the amount of light entering your camera through the camera's lens by an adjustable ring of blades that increases or decreases in size relative to the F-stop you set your camera to.

**WHAT IS AN F-STOP?** An F-stop is a measure of how large the opening of the aperture is. It is determined by the ratio of the aperture's diameter to the focal length of a lens. The higher the f-number, the smaller the aperture opening.



## MORE ON F-STOPS?

F-Stops are shown in your camera settings like this...

**F1.4 F2.0 F2.8 F4**



**F8 F11 F16 F22**

The lower the F-Stop the more light enters your camera

The higher the F-Stop restricts the amount of light that enters your camera

PS All lenses use the same F-Stop numbers however not all lenses can go as low or as high as some



## A LITTLE MORE ON F-STOPS?

Other than controlling the amount of light that enters your camera  
F-Stops also provide you with another important factor which is

## DEPTH OF FIELD

A lower F-Stop provides a shallow  
depth of field

The higher F-Stop provides a  
greater depth of field



## AN EXAMPLE OF DEPTH OF FIELD

These images are exactly the same but taken with different Apertures (F-Stops)

As you can see a shot taken with a higher F-Stop gives you a lot more of the image in focus, whereas the shot taken at F1.2 has a lot more of the image out of focus.





## HOW TO CHOOSE YOUR APERTURE / F-STOP?

The type of photography you are doing often determines whether you need a lower or higher aperture. Further to this the light conditions also play a part in your choice too.

Use the aperture to correct your exposure and finish with a balanced image.

Alternatively, choose a lower F-Stop when shooting portraits or a higher F-Stop for shooting Landscapes.



## HOW TO CHOOSE YOUR APERTURE / F-STOP

### PORTRAITS

When shooting portraits you want your subject to “pop”, using a lower F number allows the background to become soft and out of focus, this makes your portrait stand out

### LANDSCAPES

When shooting a landscape choose a higher F-stop so more of the image is in focus to provide you with a sharp overall image

### TIP

Be careful how high or how low you set your aperture, sometimes you can get problems such as refraction or Chromatic aberrations



## BASIC DO'S & DONT'S

### DO'S

Use a smaller aperture for group shots or scenic landscapes.

Remember you can blur objects to provide a foreground frame as well as a background.

Use smaller aperture can also give a pleasing bokeh effect

### DONT'S

Be afraid to experiment with different settings in different conditions.

Forget that in Manual mode you'll need to select both ISO and shutter speed settings as well.

Forget your tripod in low light conditions, to prevent motion blur.





## EXPLANATIONS

We have mentioned a few things you may not of heard of before see below

### CHROMATIC ABERRATION

This is when images appear to have a coloured fringe around them. This happens when the colours are incorrectly bent by the lens due to factors like type of lens, focal length or aperture setting. It is usually seen on white images against dark backgrounds that are towards the edge of the image.

### LENS DIFFRACTION

Diffraction is when images become less sharp at narrow aperture (high f-stops around  $f/16$  and above).

This is because the narrow aperture causes light waves to essentially interfere with one another



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