

# An Introduction to Using Studio Lights

## The Main Differences between a Studio Light and a Speedlite

The most noticeable difference is simply the physical size of a studio light – but with size comes power! Even basic studio lights have a power output that speedlites cannot match. Until a few years ago this power needed mains electricity but many studio are now battery powered so they don't have to be confined to a studio. But for the purpose of this write-up I shall continue to refer to them as studio lights!!

Next, is the power output. Not only is it greater, it's also consistent and ready again in a fraction of the time it takes a speedlite to recharge. This power is also more controllable, a speedlite usually has settings such full power, ½ power, then a ¼, 1/8<sup>th</sup>, 1/16<sup>th</sup> etc and possibly even 1/3 stops but a studio light can be set to anything you choose!! They are way more controllable than stops on a lens!!

However probably the main advantage (or it always has been to me!) is studio lights have what's known as a 'modelling light' which is simply a bulb that can be turned on so it shows the exact area where the flash will be hitting the subject – so no need for trial and error guesswork!!

Most lighting kits are sold with 2 x lights and 2 umbrellas, so that's what I've used for a lot of the example photos, but there are also lots of other modifiers to help control the light, the most popular a softbox (basically a square box the light comes through) as well as things like beauty dishes, snoots, honeycombs and barndoors.

Studio lights do have some disadvantages too, such as the need for stands/cables which can get in the way so many photographers, including me, would have their lights attached to the studio walls and ceilings!

## Setting Up Your Camera

**Camera Settings.** This where you will need to shoot in fully manual, and set iso, shutter and aperture and white balance yourself and not rely on your cameras metering system

**White Balance.** Best results are achieved using a custom white balance, but all cameras have preset options, choose flash, cloudy day will also give very good results or setting 6000k will also work. You can use auto but colours will not be as consistent as using one fixed white balance

**iso.** There is no hard and fast rule, many will want to set their iso as low as their camera allows, but you don't have to

**Shutter.** Again, you can set what you want but I do recommend that you set your camera to its x-sync speed which is the fastest shutter speed you can use without part of the image blacking out. Depending on the camera it will probably be somewhere around the 125<sup>th</sup> or 250<sup>th</sup> second mark

**Aperture.** This is the one setting that needs more thought (and care) than the other two. You can set your aperture by taking a test shot and seeing if it's too bright or dark and adjusting your aperture accordingly and repeating until you are happy, but this isn't the best way and because of this nearly all studio photographers use a piece of kit known as a flashmeter

In a nutshell, a flashmeter is a little piece of kit where you set your iso choice and then stand where your subject will be, point the meter at the light and make the light flash. The meter will automatically tell you what aperture to set. Do this once your light(s) are setup

## Setting Up Your Lights

As I said, most lighting kits are sold with 2 x lights and 2 umbrellas, and using just this it's possible to get some great images using a set up that's known as "Flat Lighting" which is putting one light at 45 degrees each side of their subject and with the same power output



As you can see, even this basic set up gives great results, nice clean lighting on the subjects, no shadows on the backgrounds and works really well whether you subject stands, sits or lays on the floor! Flat lighting also works really well with groups of people, so most photographers never really go beyond this, and there is nothing wrong with that, in fact this is my default set up for family portraits and events such as school proms

Flat lighting is consistent, and the people you photograph will love the results – but it's not really that creative so let's see what we can achieve

I am going to build up to four lights, to show what is possible but actually is a bit OTT. 90% of my personal studio work was done with either just the one light or a maximum of two lights, usually as a main and hair light

To help you understand the name each light has and how I use them, here is Garys Guide!

**Key light.** In my opinion all good photos have one primary light source and in studio work this is known as the 'key light' although you may see the term 'main light'. It's the same thing, simply different names for the brightest light in your set up. There is no right or wrong place to position it, it will vary depending on the result you are after

**Fill Light.** Does what it says on the tin, it fills in the shadows. A good starting point is for this to be a roughly a stop less than the key light. Again it can move round depending on where the shadows caused by the main light fall

**Hair Light.** The main reason photographers use hair lights is to stop dark hair blending in with dark backgrounds – it really is that simple!! Usually positioned high and behind the subjects head and can be low powered, it just needs to give enough light to make the hair 'shine'. I always put what's called a 'honeycomb' inside, it helps concentration the light

**Background light.** I sometimes use one to make a bland paper background slightly more interesting!

## Some Of My Most Frequently Used Set Ups

**One light.** As simple as you can get! This image of my friend Dana was taken with one light fitted with a large umbrella that was positioned above the camera and pointing down it's resulted in an image that's not too bad at all!



But the joy of using studio lights is that it's very easy to change things for something that's better than "not too bad" so let's look at what happens when we add a second light

**Two lights.** This is my default set up, the key light and a hairlight. The key light is to my left, and at about 45° to the subject and about 2m from her. Using a hairlight stops dark hair from blending in to the dark background, without it the image would look very different – and in my opinion, worse!

If you look at Danas eyes you can see the bright catchlights from the flash which is always a dead giveaway as to how many lights have been used, and also where they have been positioned!



Using a black background with a subject with dark hair and wearing dark clothing as resulted in this low key image

This second image uses an identical set up apart from the fact I have moved the key light further round to almost 90° to the camera. Although the lighting is very similar, using a grey background and having a model with different coloured hair and bare shoulders gives a very different image to the last one



This time, because I've used a lighter background and the subject as blonde hair (and a white hat) there is no need for a hair light so I've aimed the second light at the background to create a vignette without any need to add one later in post

**Three lights.** In my opinion this is probably the most versatile set up as in addition to the key light you have a couple of lights to do with as you wish – a hair light as I've already shown, or maybe light the background



**Four lights.** For this image I used a total of four lights, two at the front in a flat lighting arrangement plus a hair light and on low down and fitted with a blue gel aimed at the background



# Fancy Taking Things Further?

It's very easy to change an effect of an umbrella just by using a different one! Large umbrellas give wider coverage so softening shadows, a silver umbrella gives more contrast, a gold one will make skin appear more tanned. Some umbrellas only let you bounce light off them, some you can fire the flash through them and these will give your image more contrast

Or you could change the umbrella for what is known as a softbox. These help control where the light goes as there are clearly defined edges to the softbox that an umbrella does have and will also change the shape of the catchlight in your subjects eyes. The second image below is taken using one

Then we have other modifiers such as beauty dishes, barn doors, reflectors and subcontractors and so on. It's no wonder some photographers find the whole topic daunting!!

Moving on from the gear itself, if you choose to delve deeper in to studio photography you will come across terms like 'rembrandt lighting', 'high key', 'low key' etc. These are specific lighting styles and effects, but are something for another day if you are interested



These last couple of images are taken using just the one light positioned to my left. In the ballet dancer image I have removed the umbrella leaving just the dish reflector on the front of the light. Because there is no umbrella to diffuse the light I get the hard shadow which I can move around by repositioning both the light and the model

The second image shows the beautiful square effect a softbox gives, in my mind a much nicer effect than the round shape from an umbrella

Hopefully you'll see that using studio lighting isn't as daunting as you first thought, and I urge you to give it a go!!