

# UNDERSTANDING WHITE BALANCE

## A GUIDE TO UNDERSTANDING WHITE BALANCE

Understanding white balance in relation to photography is important and although it may appear a complex subject, I hope this article will help to demystify white balance and teach you how to utilize White Balance (WB) to capture colours in your photography as intended, rather than end up with images where the colours look incorrect or odd.

### What is White Balance?

White balance (WB) is a camera setting which allows a photographer to set the colour temperature of the scene. Setting the white balance helps the camera to capture white colour as pure white, without a colour cast.

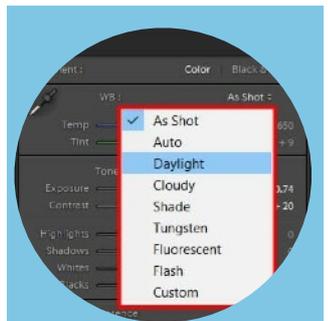
### Why Should I set white balance?

Have you ever noticed how some of your photos have a strong blue tint or warm orange colour cast? That is because, without correct white balance, your camera is unable to understand what is true white in a photo. In comparison, the human eye is very good at compensating for colour temperature and interpreting white as white.

In order to capture colours accurately, without a colour cast, you should adjust the white balance in your camera. Setting the correct white balance is especially important if you are shooting in JPEG or TIFF format. Whereas if you are shooting in RAW, you can always change the white balance in post-processing, but getting right in camera is always a good starting point.

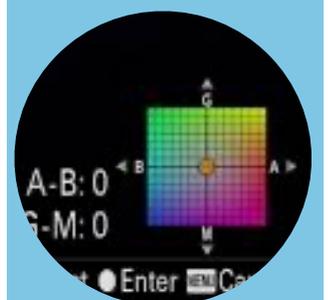
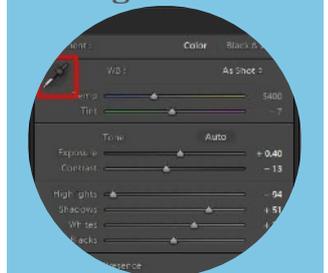
### Color Temperature & White Balance

Most digital cameras will enable you to set a custom white balance in units, Kelvin in your camera. In digital photography, when you adjust the white balance, all you are doing is specifying the colour temperature (in Kelvin) of your light source.



**White Balance  
Pre-sets In  
Lightroom**

**White Balance  
Sliders In  
Lightroom**



**Setting Camera WB  
In K**

How does white balance affect my photos?

If the correct white balance is not set, your image will have a colour cast.

Set your camera to different white balance settings and take a few shots under the same lighting conditions. As you can see below, the camera adjusts its interpretation of true white as per your white balance input.

Okay, so how do I set the white balance?

Digital cameras have several 'pre-set' white balance options that will allow you to get the right colour temperature straight from the camera.

Usually, you access the WB options through the camera's menu or with the WB button (if your camera has one). Check your manual and read how to set the White balance for your particular camera.

Many digital cameras have the following different types of WB (white Balance) settings:

**Incandescent/Tungsten:** Tungsten lights emit warm colours. So, if this WB pre-set is used, the camera will compensate by adding a cold tint (bluish tint) to the image.

**Fluorescent:** Fluorescent lights emit a colder white colour. So, if this WB pre-set is used, the camera will compensate by making your images warmer.

**Direct sunlight:** (Sunny): Selecting this WB pre-set sets your colour to around 5000 Kelvin, the typical temperature during mid-day.

**Flash:** When you are using a flash 5500k, it adds a cold tint to your images. So, if this WB pre-set is used, the camera will compensate by warming the image. Note: It adds more warmth than other pre-sets to compensate for the extra cold tint of the flash.

**Cloudy:** Cloudy days are usually gray-ish. So, if this WB pre-set is used, the camera will compensate by making the scene warmer, towards the pinks, to eliminate the blue cast of the clouds

**Shade:** This WB pre-set is similar to "Cloudy", but it warms the scene in a more subtle way.

## Custom Colour Temperature (K)

Colour Temperature or K option is good if you know the colour temperature of the scene. It allows you to fine-tune the colour temperature value ( in increments of 100) rather than using the pre-sets. By taking control of Colour Temperature, (K) you will also be able to use it creatively in your photography not just for corrective purposes.

## How To Correct White Balance In Post-Processing

If you notice a colour cast in your photos, you might be able to fix that in post-processing. However, this works best if the image is taken in RAW format.

Although it is possible to modify colour temperature in other formats such as JPEG, I highly recommend that you shoot in RAW. This is because the JPEG colour information is burned into the pixels. Which result in hard transitions, colour shifts, and wrong colours. In comparison, RAW files keep all that data and allow you to edit the information later.

Almost any post-processing software should allow you to correct WB. here's how to change WB using Lightroom. Under the Basic panel of the Develop module you will find 3 options to fix the white balance:

### 1. Lightroom White Balance (WB) pre-sets

Next to “WB:” there is a drop-down menu with different pre-sets. They are quite similar to the white balance options in your camera.



## 2. Lightroom White Balance Eye Dropper

In the WB section, look for an eye dropper tool. Use this tool to pick a spot that you know has neutral colours.

A neutral colour is a one that has the RGB colours (red, green and blue) similar between them. As you hover with the eyedropper over your photo, you will see the RGB of the spot. Hover around your photo looking for a spot that has neutral colours. Look for white objects such as eyes or teeth, or even gray objects such as walls.

## 3. Lightroom Temperature slider

You can change the colour temperature with the Temp slider. The Temp Slider itself has a colour scale to help you identify the effect it will apply and there is also a Tint Slider, to adjust tint colour.

