

## White Balance

Club Taree Photographic June 07

### In Camera










White balance is a term that refers to the process that compensates for the varying light temperatures photographers encounter. Film photographers may have found it necessary to use filters to correct for lighting situations, digital cameras have largely given photographers freedom from this concern.

Color/Light temperature refers to the relative warmth or coolness of white light. In practice this results in color shifts or casts that can be evident in a photograph. Tungsten light for example creates a warm orange/yellow cast while florescent lights cast a cooler pale green. This is one of the reasons that natural daylight is sought after by photographers.

Color Temperature	Light Source
1000-2000 K	Candlelight
2500-3500 K	Tungsten Bulb (household variety)
3000-4000 K	Sunrise/Sunset (clear sky)
4000-5000 K	Fluorescent Lamps
5000-5500 K	Electronic Flash
5000-6500 K	Daylight with Clear Sky (sun overhead)
6500-8000 K	Moderately Overcast Sky
9000-10000 K	Shade or Heavily Overcast Sky

In most cases the Auto White Balance setting is quite successful in compensation for the color shifts in an environment. Auto White Balance does work best when there is at least one white or bright object, as the subject matter it self may fool the camera. There are also common situations where manually adjusting the white balance will give better results or may create an effect that better suits the photograph you are taking.

Cameras have several preset options – select the correct setting to compensate for the prevalent light color conditions.

	Auto White Balance
	Custom
	Kelvin
	Tungsten
	Fluorescent
	Daylight
	Flash
	Cloudy
	Shade

There are situations when none of these options are giving you the results you want in which case the custom option will give you more control. This is most likely to happen when shooting in mixed lighting situations or when the photographic subject has a dominant color. Customising the white balance requires a neutral card that is 18% grey or white – these can be purchased at a photographic equipment supply store or a less expensive option may be available in your household.

Hold or place the card and fill the frame with it and then record the setting as required by your camera (check the manual). You can then use this custom setting to take images, as long as the lighting situation does not change during the shoot.

Don't overlook any scene modes as an option for white balance correction. Camera scene modes may contain a setting for specific environmental situations like Snow which is notorious for creating color issues. Using the Snow scene mode the camera will automatically attempt to compensate for the common color shift.

### **Post Processing**

It is possible to adjust white balance in post processing. In Photoshop you can use photo filters, variations, color balance, levels or curves or any combination to adjust the color temperature or vanquish color casts.

RAW files ignore any white balance setting and require digital manipulation in a RAW editing program to specify the white balance of an image.

There are also plug ins and actions that have been created to specifically solve white balance problems.

The links below contain useful information and tutorials for both in camera and post processing:

<http://www.expertvillage.com/videos/photo-techniques-color-balance.htm>

<http://www.earthboundlight.com/phototips/zen-of-white-balance.html>

<http://www.kenrockwell.com/tech/whitebalance.htm>

[http://www.powerretouche.com/White-balance\\_plugin\\_tutorial.htm](http://www.powerretouche.com/White-balance_plugin_tutorial.htm)

[http://www.adobe.com/digitalimag/pdfs/ps\\_workflow\\_sec3.pdf](http://www.adobe.com/digitalimag/pdfs/ps_workflow_sec3.pdf)