

Shooting Flash on Location

Modern cameras do a great job of shooting in most lighting conditions. Even very low light conditions are easily handled by modern DSLR sensors. There are always times though where you need more light, and a portable flash is great for these situations.

On-camera Flash

Generally shooting flash on camera creates a flatter image without much depth. At times on-camera flash must be used as it is a convenient option. Flash on-camera is quite harsh when pointed directly at the subject as it is a small light source that creates hard shadows. This is especially true of the built-in flash in camera which is smaller, less powerful and closer to the lens.

Nikon's compact SB-700 speedlight flash



If you have to shoot on-camera flash the best thing to do is diffuse the light. There is a range of light modifiers available that will shape your light and a diffuser provides a softer light with less harsh shadows. It is much more flattering when shooting people. If your flash unit's head can pan and tilt, you are also able to bounce the light off a nearby ceiling or wall. As the light is bouncing off a larger source (the wall or ceiling), it softens the light and makes it more directional and natural looking. Make sure that the surface you are bouncing the light off is neutral in colour (white or cream), otherwise you will get a colour cast that can be hard to remove when editing. Some external flash units actually have a bounce card built-in that will create a better quality of light.

Off-camera Flash

Remotely firing your flash off the camera will create more depth and definition in your photographs as the directional light provides shape. You can use your external flash off-camera wirelessly or with a cable. Some cameras and flash units have a wireless mode built-in that will fire the flash light/s off in an automatic or manual mode. Generally these use infrared light to fire or a radio signal. Radio does not require line of sight like the infrared so is the better option. If your camera does not have a built-in mode then there are a variety of triggers and accessories that will create a wireless or wired connection.

Key & Fill Light

The key light is the primary light source and generally the more powerful one. It can be a flash unit or if shooting outdoors you may use the sun as your key light. The fill light is the secondary light source, this is generally not as powerful as the key light. It may be a flash, ambient light, the sun or a reflector. Depending on your set-up you may be working with a single light or multiple.

Metering your Exposure

There is a variety of options when metering your exposure depending on what sort of set-up that you are using. An automatic flash lighting set-up can be metered automatically by the camera and flash with little intervention. When shooting manual though you need to select the settings yourself.

For anyone who has not shot in manual before you are aiming for the exposure meter to be in the centre (at 0) and this is achieved by altering your manual settings of ISO, shutter speed and aperture.

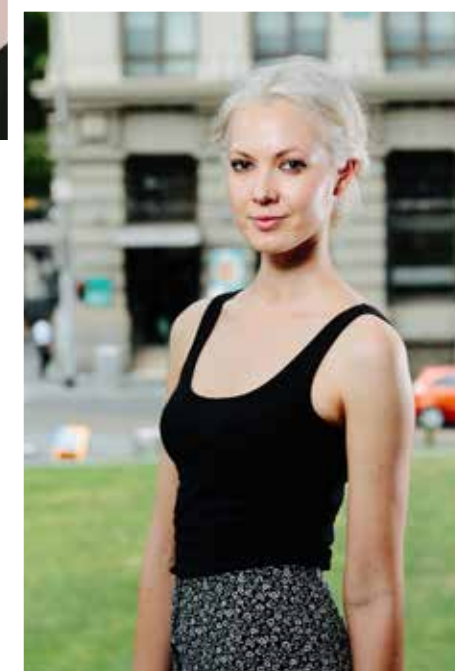
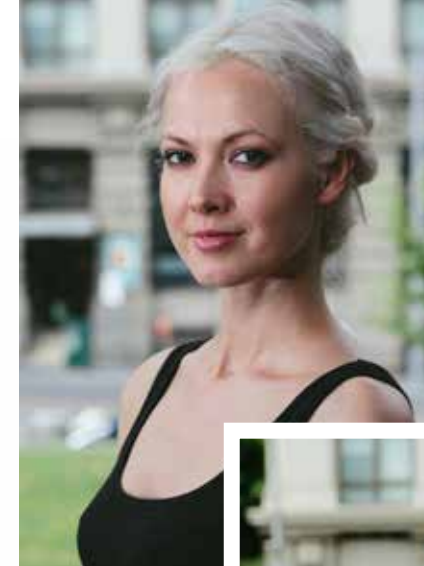
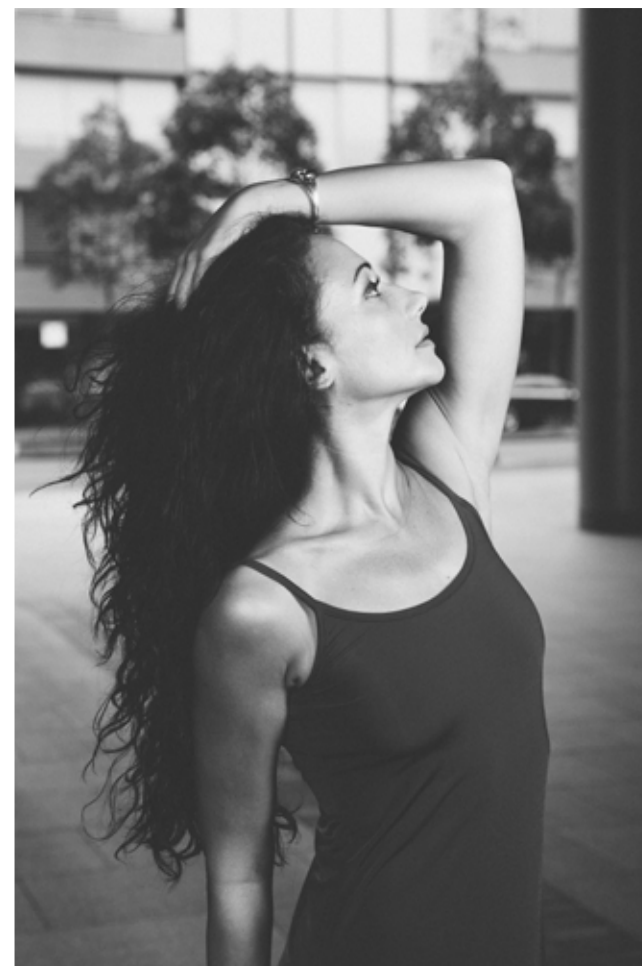
Flash power cannot be metered in camera when using manual mode. It needs to be metered by a specific flash meter that reads the power of the light and then tells you what settings to use or you can meter it by taking a photograph and assessing it on screen. You can look at the image on the screen or read the histogram to judge exposure.

Balancing the Exposure

When shooting flash on location you are often contending with a variety of light sources. These light sources vary in brightness and colour temperature. For outdoor shooting during the day, the sun is obviously your main light source. When



Hahnel Combi – Inexpensive triggers for a basic manual off-camera flash set-up.





Light stands allow the flash to be more easily positioned off camera. A tripod could also be used.

shooting flash on location you can choose settings that will balance the available light source, with your flash creating an even exposure or overpower the available light source. It can be hard to balance your flash in direct sunlight in the middle of the day and often it is best to shoot in the shade and balance the background light. A balanced shot will sometimes look more natural, but the setup you use will depend on the direction of the shoot.

If shooting in an automatic flash mode, your camera and flash can generally co-ordinate a well-balanced exposure, depending on the amount of available light. You can utilise multiple lights and some equipment can set a light ratio where one light acts as the key and others as fill. The camera and flash communicate and cut off the flash when enough light has been put onto your subject. This mode is referred to as TTL mode or Through The Lens metering. For shooting in fast paced scenarios TTL is an easier option.

When it comes to settings, it is important to remember that the available ambient light is

controlled by your three manual settings of ISO, aperture and shutter speed. Changing any of these will alter the exposure (amount of light) that the camera sensor is receiving. This lightens or darkens your image. Flash on the other hand fires at such a quick rate that you cannot use shutter speed to alter the amount of light that the camera reads. Therefore to alter the power of the flash you can change aperture, ISO or the power of the actual flash unit. Most advanced flash units have a manual power option ranging from full power down to 1/128th of full power.

The other limiting factor with most flash photography is the flash sync speed. The flash sync speed is the fastest shutter speed that you can use on your camera that will still synchronise with the flash.

Because the flash is firing for such a short duration, your camera needs to be able to line up the shutter motion. Failure to get the sync speed right will result in a black band on one side of the shot. This generally happens when the camera shutter that is moving across the sensor has captured part of the flash fire but not all of it. Your camera manual will tell you the maximum shutter speed that your camera will sync with. Some camera and flash combos also have a high speed sync mode that will get around this problem.

With these limitations around equipment in mind, when shooting manually, you need to consider what you are trying to achieve and adjust your settings accordingly.

When setting up a shot that balances the flash and available light, generally it is best to alter the settings in order, building on the exposure. When using manual mode you are taking control of the settings on the camera and judging exposure with the light meter or histogram. There is a little trial and error involved where you will move your setting back and forth to get the results that you desire.

Shooting in Ambient Lighting with the Subject in Foreground

Set your ISO to a suitable starting number (e.g. 100 ISO for brighter, 800 ISO for darker). Set your shutter speed to a speed that is within your flash sync range (use a slower speed for less light but something that can still be handheld). Sync speed is often under 1/250th second but this varies between cameras.

Set your aperture to a setting that will provide a correct exposure under the ambient / sun light. If your background is the area that is lit up then expose for that.

Alter any settings to provide a lighter or darker background as required. Meter your flash by either using a flash meter or shooting an image and checking the picture on the back of screen or the histogram. Change the flash power until the light suits the aperture you have set (whites retain detail).

Safe Shutter Speeds to Handhold

The general rule of thumb is that you can safely handhold your camera at a shutter speed 1 over the focal length of the lens without shake. For instance a 100mm lens can be safely handheld at 1/100th of a second shutter speed. A lens or camera with a built-in stabiliser can help to hold the camera steady at slower speeds as will a tripod.

- 20mm lens: 1/25th
- 50mm lens: 1/50th
- 100mm lens: 1/100th
- 200mm lens: 1/200th
- 500mm lens: 1/500th

Light Modifiers

When shooting with a flash, the bare light is quite harsh even when off-camera. For creative control over your lighting, you may want to invest in some light modifiers and shapers. There are modifiers to soften and diffuse the light over a larger area, while others can be used to point the light into an area and light it selectively. Used in different situations the light modifiers can help direct the style of the shoot.

Challenge

Shoot some images utilising flash and available light. Experiment with various levels of available light from bright to dark at different settings. Use a tripod for slow shots with flash and movement, the flash will often partially freeze the action. Get the flash off-camera if you can or bounce the light off a surface. As always, be sure to experiment with various techniques.

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Canon's STE-E3 automatic flash controller that is used in conjunction with Canon speedlites for automatic control.



Umbrella mounts hold a flash and studio umbrella to diffuse the light.