

FILL IN FLASH.

This video is a good start. A few adds and pop ups to suffer but the 3-minute video on using the pop up flash is useful. <https://www.digitalcameraworld.com/uk/tutorials/fill-in-flash-tips-and-tricks-for-using-a-flashgun-in-daylight?jwsourc=cl>

This is a presentation of how I understand the intricacies of Flash Photography so some of the information may not be exact, but if you are puzzled about the use of your flash equipment, it might be of some assistance. I HOPE YOU ALL VIEWED THE POWERPOINT ON THE WEBSITE ABOUT FLASH



My collection of flash units is nearly as bad as my collection of cameras. Much of my stuff is quite old and the controls can be quite different on each unit.

Some of you may have already become conversant with your own equipment.

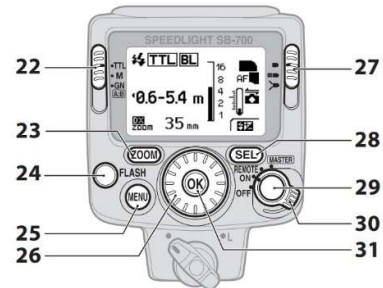
The advice to beginners is GET TO KNOW THE EQUIPMENT YOU ALREADY HAVE AND GET THE BEST FROM IT BEFORE

YOU START LOOKING AT NEW EQUIPMENT IN THE HOPE THAT IT WILL IMPROVE YOUR PHOTOGRAPHY. READ YOUR INSTRUCTION MANUAL AND UNDERSTAND THE CONTROLS AND SETTINGS YOU HAVE AVAILABLE.



Modern flash guns, strobe units, speedlights or Speedlites (different spelling) are very clever but here is some old information that is worth knowing.

Speedlight Parts



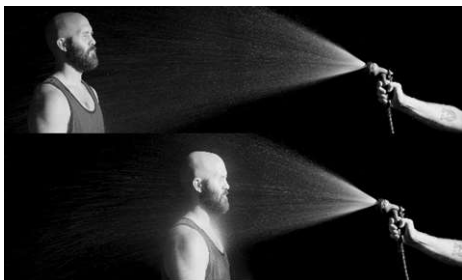
GUIDE NUMBERS.

Not as relevant as they used to be because of the automated systems of a modern flash but they are a guide to the power of the flash and how far it's light will go.

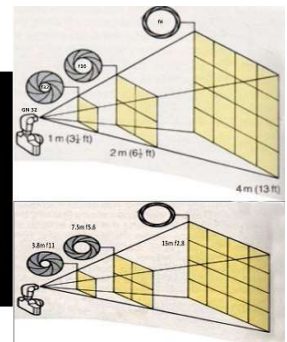
When a flash or flash bulb had only a fixed output it is used to calculate the exposure.

The early flashgun guide numbers were all standardised for 35mm film (Full Frame) 50mm lens coverage and ISO 100.

However modern units use the zoom function to magnify the light output. I have one that listed as GN 60 (200mm ISO 100). When measured using the old system the output is only about GN 28.



The efficiency of the reflectors in the flash will influence this.

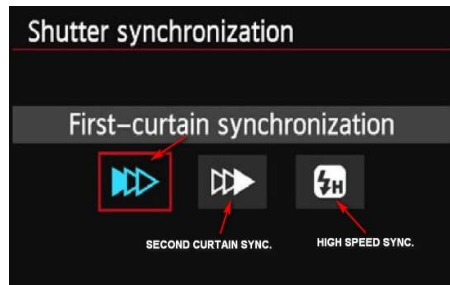


Also check the guide number advertised is in metres not feet

(has anyone worked out the last GN?)

Anything that is put over the flash to defuse the light will reduce the output.

GN's are for indoors so outdoors the effect is reduced as there are no walls to reflect any light.



Through the lens metering of the flash, Second curtain flash and High-speed sync all need the flash and the camera to communicate with each other.

Information is exchanged through the connections on the hot shoe when the flash is on the camera. These are different for different manufacturers and in some cases,



different models of camera. The large centre pin is usually the one that fires the flash. These need to match and they need to connect properly. Take care with the locking pin on the flash.



Off camera it can be triggered by light from a camera mounted flash or a wireless trigger, but communication will only occur through a matched system that ‘speaks the same language’.

Communication can be by infrared light, where the camera and flash need to be able to see each other or radio where the flash can be reliably placed out of sight of the camera. Radio can be 433mhz or 2.4G and there are several channels.

Oh, and don’t forget that the flash needs to be charged up for things to perform correctly.

This is why, up until recently I got on best with a simple radio trigger and a flash that controlled itself. (Olympus T20).



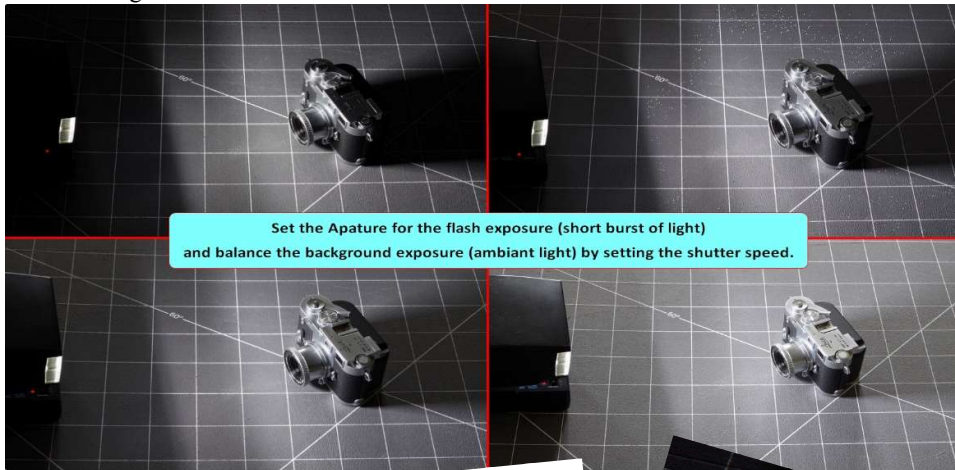
Video of fill flash examples:

<https://youtu.be/3KOzG3NT0Fc>

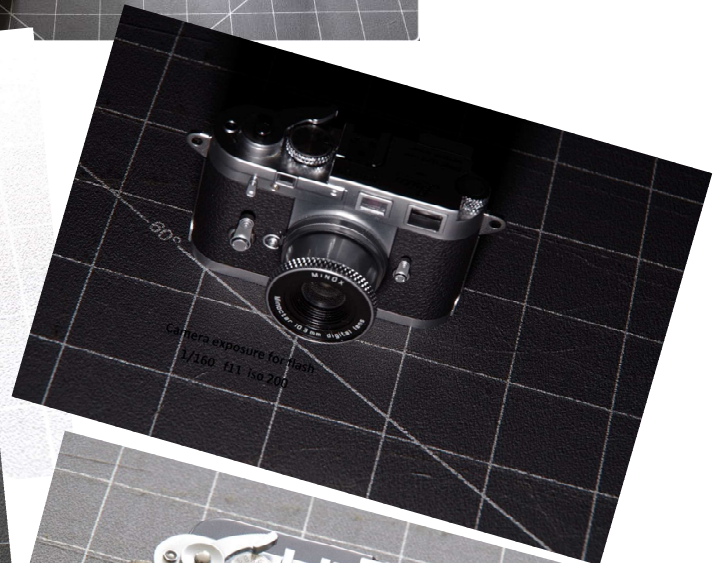
(Best viewed at 1080p HD)

FILL IN FLASH - THE IDEA IS TO BALANCE THE FLASH TO THE AMBIENT LIGHT.

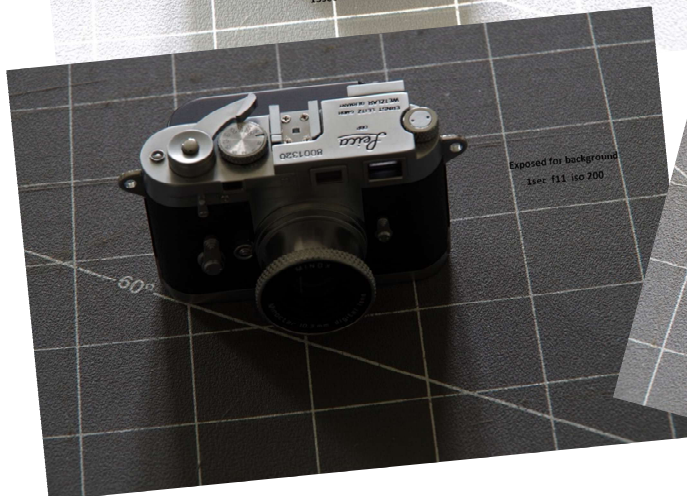
Set the exposure for the scene adjusting the aperture for the flash to illuminate the shadows or the subject depending on the result you are aiming for.



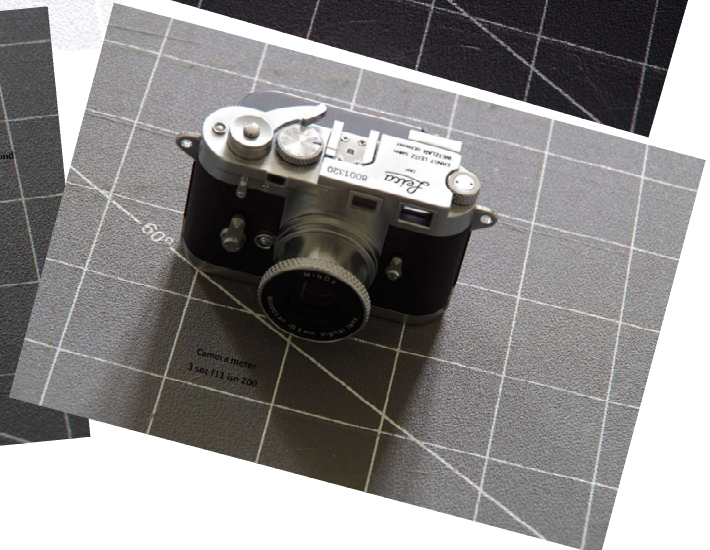
Expose for shadow side
1/5sec f11 iso 200



Camera exposure for flash
1/160 f11 iso 200



Exposed for background
1sec f11 iso 200



Camera meter
1/5sec f11 iso 200

Fine adjustment of the flash can be done in several ways (just to confuse things even more).

- A) The TTL (through the lens) auto exposure compensation for the flash can be adjusted in camera or on the flash equipment.
- B) WHEN THE FLASH IS IN MANUAL OUTPUT: Small change to the Aperture.
- C) By adjusting the flash power output
- D) Adjust the zoom setting manually or defuse the flash. Zoom in will harden the shadows, Defusing the flash will soften them.
- E) By moving the flash closer to the subject to lighten or away from the subject to darken.
- F) Bounce the flash of a surface. Be careful of the colour of the surface though.
- G) Or any combination of the above.



HIGH SPEED AND SECOND CURTAIN SYNCRONISATION.

This video should help you understand the shutter operation <https://youtu.be/CmjeCchGRQo> (Shutter video.)

Note: Although the exposure may be 1/2000 of a second, the time it takes for the opening in the curtain to travel over the sensor can be as long as 1/200 of a second. So high speed sync is not the best for freezing very high-speed action.



USING OLD FLASH GUNS.

The safest way to use an old-style flash is off camera fired by a wireless trigger. Digital cameras have delicate circuitry in them that can be damaged if the wrong flash is connected to the hot shoe. Old flash units often have a high 'trigger voltage' that can 'fry' a camera circuit.



Digital camera flash.



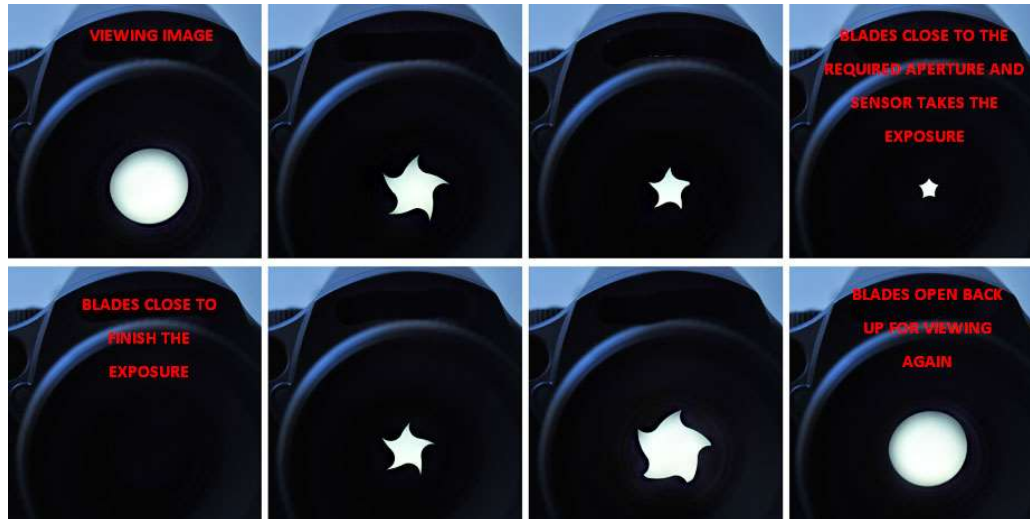
Old flash gun. Not to be used!



Old Flash but safe trigger voltage.

LEAF SHUTTER SYNCRONISATION.

Some 'Medium Format' digital cameras, Compact fixed lens cameras and Bridge cameras have the shutter in the lens.



As the illumination from the flash often has a duration of less than 1/10,000 of a second, it is sometimes possible to synchronise a shutter of this type to an exposure speed up to 1/8000.

When the ambient light is low and the flash is on the camera close to the lens, be careful of 'red-eye'. Catch lights are less attractive as well. These can be corrected when editing the image.

