

Tips for using On camera flash

POWER

The limitation on how far your flash will illuminate may or may not be an issue.

If you want strong light move closer.

If you want more diffused light move back.

BACKGROUND

If your subjects are close to a background there will be a deep shadow from the flash. Pull your subjects away from distracting backgrounds.

DIFFUSE THE LIGHT

You can use something to tone down the intensity of the light. White paper, your hand, wax paper.

USE AS A FILL

Even if your subject is in full light check where shadows are falling, adding the on camera flash can help eliminate unwanted shadows.

Fill Flash

- Works great on back lit subject to illuminate front side.



No Flash



Fill Flash

Courtesy Nikon, Inc.



EXPLAINED A FLASHGUN'S KEY FEATURES

A dedicated flashgun gives you more power and control than the small unit built into a camera

FLASH HEAD

Most flashguns feature 'tilt and swivel' heads that allow you to angle the flash towards a white ceiling or wall in order to bounce the light for softer illumination

BUILT IN BOUNCE CARD/WIDE-ANGLE ADAPTOR

A small screen to spread the flash beam wider or to add a catchlight in people's eyes when the flash is bounced

MODE SELECTION SWITCH

You can use this switch beside the LCD to choose between your flashgun's TTL, Manual, Stroboscopic and other flash modes

LCD PANEL

Use this simple LCD screen to keep track of flash distance and power, the zoom setting you're using, and Exposure Compensation



AF ASSIST

In dark conditions, the subject can be highlighted by a beam of red light before the exposure, in order to allow the autofocus system to lock on

READY INDICATOR LIGHT

You need to keep an eye on this handy indicator, which tells you whether the flash has fully recharged between shots

ZOOM

The flash head can often be zoomed to match the focal length of your lens, ensuring even coverage at wide angles and greater range with telephotos

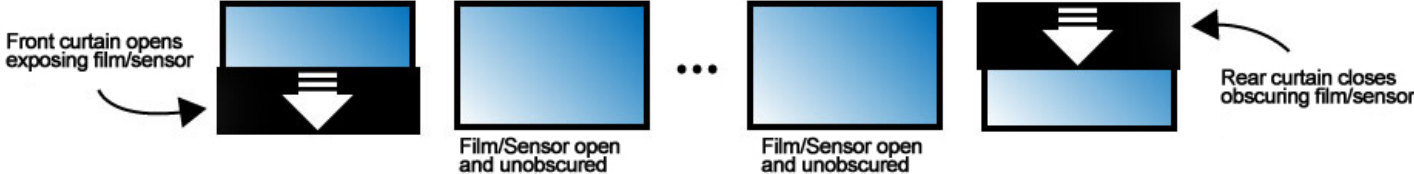
HOTSHOE CONTACTS AND LOCK LEVER

Dedicated flashguns communicate lots of information about settings, power and other functions through the hotshoe

- Every flash photograph is two exposures in one – an ambient light exposure and a flash exposure. This is a critical fact to remember. The shutter opens, the flash fires, the shutter closes. During this time, both ambient light and flash will contribute to the recorded image. Flash photography requires managing both exposures.

Focal Plane Shutters

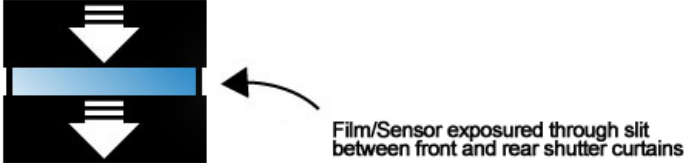
1. Slower shutter speeds



2. Maximum flash sync speed



3. Faster shutter speeds



(E)TTL flash

- Through The Lens.
- The camera registers the amount of light returning through the lens and then works out the right amount of light to pump out for the main flash exposure.
- The camera will control the flash exposure in TTL mode no matter what aperture or ISO or shutter speed.

- With automatic flash metering, the flash illumination is measured after the shutter button is pressed, and the flash output is adjusted accordingly. There are technical differences between the various types of flash metering, but all of them operate independently from the camera's metering of ambient light, and all of them work by adjusting the output of the flash, not by changing the camera's exposure settings.

- Flash exposure is not affected by shutter speed.

The entire burst of light from the flash begins and ends while the shutter is open, so keeping the shutter open longer won't help with flash illumination. The flash exposure and the effective range of your flash unit will be affected by aperture and ISO settings, but not the shutter. Of course, the ambient light component in a flash photograph is affected by shutter speed. So changing the shutter speed is one way to manage the amount of ambient light that contributes to a flash photograph.



1/200

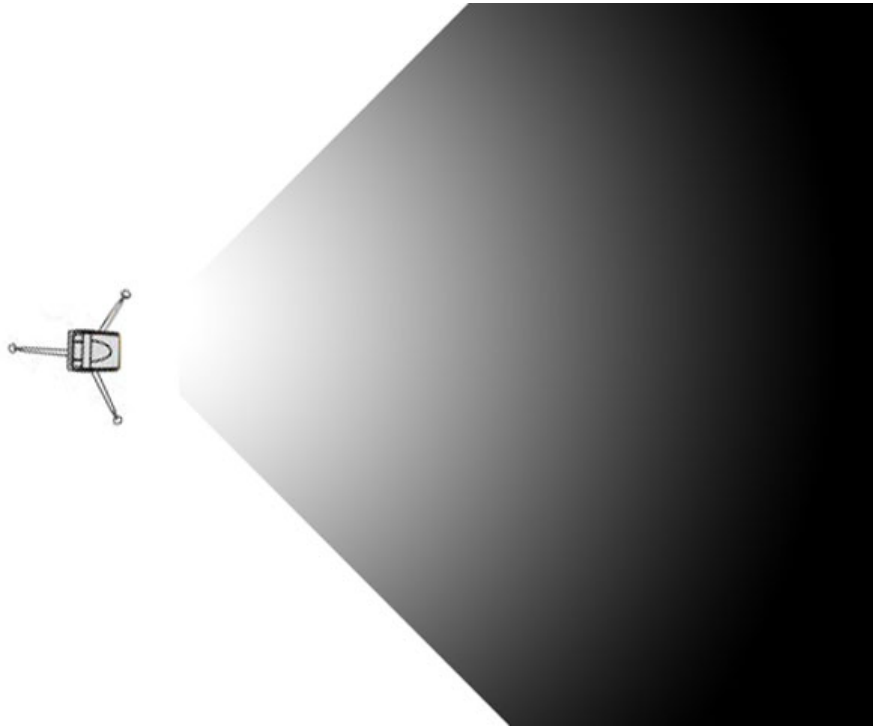
1/250

1/320

1/400

Nikon D300s ... Auto FP 1/250 ... flash triggered via PW Plus II

- Flash illumination is dramatically affected by distance.

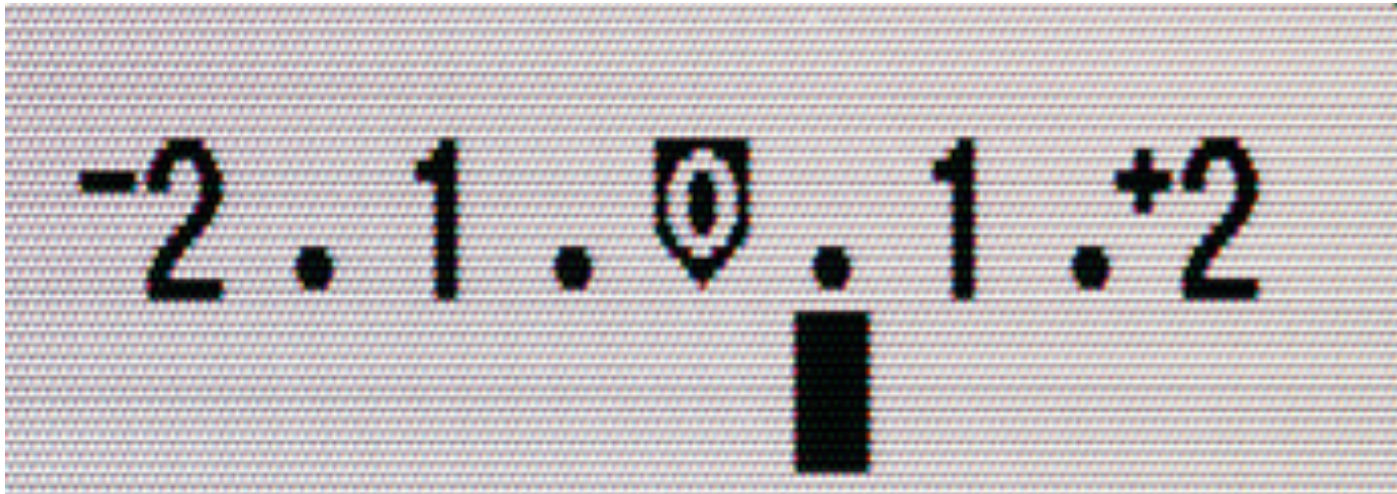


Using Flash and shooting mode- use in P,A modes

- Program (auto) will allow the camera and flash can work together (but limited control). Override by using Flash Exposure compensation (out put of flash), or use Exposure compensation to lower or raise the ambient light exposure.
- Aperture (Av/A) will allow you to choose aperture setting and ETTL with connect with correct shutter control.
- Low ISO setting
- Nikon- Auto FP synch (Menu pencil- bracketing/flash)
- Canon- High Speed synch (Flash ETTL high speed synch)

Exposure Compensation

- Allows you to adjust the exposure of the ambient light.



Flash Exposure Compensation

- Allows you to adjust the output from the flash.



Which Flash is right for you?

- What is your **budget**? Budget is certainly the biggest factor when choosing a flash. With flash units, you almost always get what you pay for. If you cannot spend more than \$100 on a flash, expect to buy a third party unit from companies like Vivitar, Bower, Nissin and Sunpak that all have external flashes for under \$100. If you do not have budget limitations, then the best flashes are going to be the most expensive ones from Nikon and Canon.
- **TTL** or Manual? I highly recommend getting a flash unit that can use TTL (Through The Lens) system. Think of TTL as an “Auto” mode for flash that lets you shoot pictures without worrying about underexposing or overexposing your images – a great way to get started.
- Do you want to use your flash **off-camera**? I personally would not buy a flash that does not let me shoot off-camera. Unless you are absolutely positive that you would always shoot flash on top of your camera, you should try to get one that at least allows you to use it as a slave.

Flash key words to know

- **Guide Number** - The guide number for a flash is indicative of the size of the flash. If the flash is meant to be mostly used for close portraits, then the photographer doesn't need a large guide number. If the subject of photos will be more of interior architecture or any other situation where large spaces need to be illuminated, the guide number should be larger to ensure that the flash will be powerful enough for the photographer's purposes.
- **Flash Sync** - The flash sync speed is a camera function, but very important to the external flash. It can also let the photographer know how much flash to buy. If the camera is more of a budget camera, and has a low flash sync speed, the flash will limit the shutter speed of the camera. The better the camera, the higher the sync speed, and the better flash the camera can handle.
- **Recycle Rate** - The recycle rate is very important to those shooting action scenes. This rate is simply noting how quickly the flash can recharge itself to fire again. If the photographer is going to be setting his or her subjects, pausing after the photograph, and then resetting the subject, the recycle rate is not very important. However, if the photographer will be doing a lot of photography of moving subjects, then the recycle rate is very important. The photographer will not want to be limited by his or her flash when it comes to taking plenty of rapid photographs.

Beginner Flash Suggestions Canon

There are several entry-level flash accessories which are compatible with Canon DSLRs and cost under \$150. (from Tech Review Blog 2013)

[Neewer TT560](#) - The Neewer TT560 is one of the best bang for your buck flashes for a Canon DSLR that is currently on the market. Currently priced under \$40, the TT560 provides a solid build quality and excellent performance for the price. However, it is not an E-TTL so you'll need to manually adjust the flash settings (not difficult to get the hang of) in order to get the proper lighting.

[Canon 270EX II](#) - The 270EX II is the only Canon-branded flash to make this list, primarily because Canon flashes are not cheap by nature. It is the smallest and most lightweight flash in this price range which will appeal to some users who want extreme portability. Personally, I'd choose an aftermarket brand to save some money, but you can't go wrong with the 270EX II.

[Yongnuo YN-560 II](#) - The Yongnuo YN-560 II is a quality flash that mirrors higher priced name-brand competitors without breaking the bank. With a reasonable recycle-time of 3 seconds and a minimum flash duration of 1/20,000 of a second, you'll be able to capture high-speed shots with ease. For under \$60, the build quality and design is solid and the flash can be manually adjusted or simply used as in the optical slave mode which triggers via another flash.

[Precision Design DSLR300](#) - A lesser-known flash, the Precision Design DSLR 300 is a solid contender that fits all Canon DSLRs that bear a hotshoe mount. It features a highly adjustable head which can be swiveled to capture that perfect angle to bounce the flash and spread even light throughout your photos. Priced under \$60, this flash is an excellent entry-level accessory that will help you take better photos.

[NEEWER NW680/TT680](#) - The TT680 is the updated E-TTL version of the TT-560 listed earlier in this article. Featuring multi-flash capabilities, a fast flash recycling, and a large rear LCD with backlight capabilities, the TT680 is a tough flash to beat especially for the low under \$60 price tag. Additionally, you have the option to turn off the "auto" mode and manually program the flash if you are an advanced user.

Beginner Flash Suggestions Nikon

If cost is the biggest dilemma for you, then here are some third party flashes that fully support iTTL under \$100:

- [Bower SFD728N](#) – the cheapest external flash under \$50, with a flexible head to bounce light. Don't expect much out of this unit, since you get what you pay for. It does not come with a diffuser dome and cannot be used as a slave.
- [Bower SFD35N](#) – a better version than the above SFD728N, comes with an Auto Focus assist function, which will help you focus better in low-light environments. Cannot be used as a slave.
- [Vivitar DF350Z](#) – similar to Bower SFD35N, the Vivitar DF350Z is a good overall flash with a flexible head. Also comes with AF assist for focusing in low-light and cannot be used as a slave.
- [Vivitar DF400MZ](#) – at \$99, it is a very capable flash that comes with a built-in flip-out diffuser. The nice thing about the DF400MZ, is that it can be used as a slave.
- [Bower SFD926N](#) – just a few dollars more than the Vivitar DF400MZ, the Bower SFD926N is a nice flash with plenty of features such as flash zoom based on camera focal length. It also comes with a built-in diffuser and also supports slave mode for off-camera setup.
- There are plenty of other flashes at similar price range from various companies.

If you can spend more than \$100 on a flash, but want to stay at around \$200 price range, then here is what I recommend:

- [Nikon SB-600](#) – if you do not care about using flash as a master, the Nikon SB-600 is your best buy. It comes packed with all kinds of great features such as Auto Focus assist, high-speed sync, full i-TTL support and it works great with all Nikon DSLRs. It can only be used as a slave.
- Why am I recommending just one flash? Because at this price range, I believe you would be better off with a Nikon speedlight. While other flashes might sound like a good deal, Nikon's flashes fully support all CLS features and are designed to work best on Nikon DSLRs. On top of that, if you purchase another flash unit from Nikon in the future, the SB-600 would be fully compatible with it. If you are not scared to buy used equipment, then you can get an older Nikon SB-600 for less than \$200. If you are not afraid to shoot in manual mode without TTL, the older Nikon speedlights such as SB-26 and SB-28 are also of great value and you can snatch those used for less than \$100.
- If budget is not a big issue for you and you just want to get a good flash, the list of flashes to recommend is based on features they offer:
- [Nikon SB-600](#) – once again, a great value for the money for those who need a single flash to go on camera or to be used in an off-camera setup. If you do not care about triggering other flashes (master mode), then the SB-600 is your best bet.
- [Nikon SB-700](#) – the newly released SB-700 is around \$100 more than the SB-600, but has a bunch of new features the SB-600 does not have. It can work as a master and a slave, has a newly designed user interface that is very intuitive when compared to the SB-600, comes with a very useful diffusion dome plus two filters/gels for indoors shots and much more. It will certainly be a very popular flash among photo enthusiasts.
- [Nikon SB-910](#) – the Mercedes-Benz of Nikon speedlights, the SB-910 is a high-end speedlight designed for enthusiasts and professionals that need the most features for demanding applications. Priced at \$550, the SB-910 can be used both as a master and a slave, has a similar intuitive user interface as the SB-700, comes with plenty of accessories such as diffuser dome, filter set and flash stand, has an automatic flash zoom head that can zoom in and out based on the focal length you are using and more. The biggest two advantages of the Nikon SB-910 over SB-700 is that it has a PC/sync cord for connecting external flash units such as PocketWizard and ability to use powerful battery packs.
- [Quantum Qflash TRIO QF8N](#) – an expensive top-of-the-line flash that has an ultra-fast recycle time and lots of power. Unlike Nikon speedlights, it has a large reflector on the front which diffuses the light coming out of the flash for better quality images and softer shadows. It can work as a master or a slave with additional modules.