

Low Light Event Photography

By Gerry Chudleigh

Taking digital photos during daylight hours at an outdoor event is in many ways the least challenging. You can set your camera to the P (Program) mode and trust the camera to select the proper shutter speed and aperture (lens opening). In daylight, the shutter speed is fast enough to eliminate blur from minor camera shake and from subject movement. And the lens opening is small enough to make nearly everything in focus. Even if the photographer focuses on the wrong thing, the picture will probably be acceptable. And in daylight the camera is usually able to select the correct amount of light.

Photography can be even easier indoors with a good flash, because the flash will properly light the subject, and there will be no blur, because the exposure is quick. Unfortunately, most pictures taken with a camera-mounted flash are, if not ugly, at least much less attractive than photos taken with good available light.

The good news is that as more and more events are broadcast on television or are recorded on video, still photographers can take advantage of the lights that have been installed for video.

Great photography at a lit event is easy, and the resulting photos are often spectacular. But you will have to be brave enough to rotate the dial on your camera from P (program) to M (manual). And you will have to pay special attention to motion blur and focus, which are discussed below.

Shooting in manual mode is much easier than you might think. Once you take the plunge you will almost never use automatic mode, except for outdoor photos and indoor flash photos where there are no lights.

What is wrong with using the automatic modes -- Program, Aperture Priority and Shutter Priority? The light and dark parts of a lit stage will often fool all three of the automatic programs. Many of your photos will be under exposed or over exposed. The Program mode is the worst because in addition to often giving you the wrong exposure, it will almost always partially close the aperture and slow down the shutter -- producing blurred photos. Why suffer with all this, when it is so easy to shoot in manual mode?

Here are the steps to easy manual photography. As with most beginning rules, you should learn these, then do whatever works for you.

1. Check all the settings on your camera

- ISO ("film speed") -- set to 400. If you find you are getting too much blur from subject motion, you can try higher speeds. But the higher settings produce "noise" -- a mottled look -- especially in the dark areas. Cameras with full-frame sensors (your's probably does not have one), can shoot at 800 and higher with very little noise.
- Mode -- Manual
- Aperture -- f2.8, or the widest opening (smallest number) your lens is capable of).
- Shutter speed -- set at 1/60th of a second.
- White balance -- if all the light is obviously coming from incandescent lights (anything that is not daylight or flash or fluorescent lights), set the white balance to incandescent. This is very important because many automatic white balance programs are not able to read the cool settings of incandescent light. If you leave white balance on Automatic your pictures will probably all look too red and will appear fuzzy. (But when you walk outside, or turn on the flash, you must switch the setting back to automatic or all your pictures will be disastrously blue.)
- Picture quality -- set at the largest size and the highest quality jpeg. You may also use raw. Some cameras will let you choose both raw and jpeg.

2. Shoot Pictures

- Shoot some test pictures. Aim at the guy setting up the microphones. Shoot a picture. Look at it. If it is overexposed change the shutter speed to 1/80. If it still overexposed, change it to 1/100. If it is underexposed slow the shutter speed to 1/40th or even slower. Keep testing and adjusting until you are happy with the exposure.
- For the rest of the event you will be shooting, looking at the resulting photos, and adjusting the shutter speed to get the correct exposure of faces. You will soon learn to predict slower settings for people with dark skin and faster shutter speeds for people with light skin. Sometimes you will notice that you need to adjust for lighter and darker parts of the stage.
- Learn to use the zoom feature in the photo review window on the back of your camera. You cannot tell if a photo is in perfect focus by looking at the whole picture. If you have a picture of a speaker standing at a microphone, zoom in on the eye and see if it is still in focus.
- Shoot lots of pictures. They are free. I usually shoot one hundred to two hundred pictures of a main speaker to make sure I get a good one.

3. Focus

- The problem: The wider a lens is open the less of the foreground and background will be in focus. If you are shooting people on a lit stage, you are shooting at a very wide opening, so most of the picture will be way out of focus. Your objective is to make sure the part you want in focus is in focus. Most of the low light photos you cannot use will be discarded because the subject is out of focus. Tips:
- Set your camera to focus on a spot, rather than an average focus for the whole picture.
- Focus on an eye if possible. Even then, with the lens set at 2.8 or wider you will notice that when the eyes are perfectly in focus the ears and nose are slightly out of focus. That is OK. But if you accidentally focus on the wall behind two people, the wall will be in focus and both people will be very much out of focus. Experiment.
- Find lines and contrast. Your camera uses lines to focus, and it will be struggling to focus in low light. To help the camera, always try to focus on an area where there are some lines and contrast, for example on the eyes, hair, mouth or shirt collar. If you try to focus on a cheek or forehead, the camera may be unable to focus at all.
- Framing -- focusing in low light is difficult, but cropping later is easy. Make sure the lens is wide enough to get everything you want, then forget framing and focus on the part you most want in focus. You can crop it later for proper framing.
- Your camera may allow you to choose manual, single or continuous focusing. Most of the time, choose single because that does allow you to focus and then frame. If the camera is set at continuous, you will focus on the person on the left, then center the camera between the two people, and the camera will focus on the wall behind them. Experiment.

4. Motion Blur

- The problem: A flash is bright and brief, freezing most action. And if you are shooting outdoors you may be shooting at 1/500 of a second or faster, which will freeze most action. But indoors you are usually shooting at speeds slower than 1/100th of a second, often much slower. Many shots I publish are shot as slow as 1/30th of a second, a few as slow as 1/15th (with image stabilization turned on). With image stabilization and a steady hand, the camera is probably very steady. But the subject is moving. How do you get a picture of an energetic speaker, that is not blurred? Tips:
- Take many, many photos. With a subject that moves around a lot, you may be lucky to find one perfectly clear picture out of 10-20 that you take. And that may be the one where his eyes were blinking

or his mouth was making a "th" or "f" sound. So shoot and shoot and shoot. When you get home you can delete and delete and delete.

- Hold the button down and let the camera take multiple shots. Try to predict the moments of emphasis when the speaker freezes.

If you have any questions, or suggestions for improving these tips, please let me know.

Words of Wisdom: "The difference between an amateur photographer and a professional is that the amateur takes a few pictures and shows all of them to everyone, while the professional takes many pictures but shows only a few to others."