

Manual Mode: A Primer

<http://www.digital-photo-secrets.com/tip/1308/manual-mode-a-primer/>

It's funny. You'd think that with all the technology we've invented, there would no longer be a need for manual mode in photography. We've got cameras that can detect faces, cameras that can get rid of red eye, and cameras with a gazillion different shooting settings. How hard could it be to make a single automatic mode that always works no matter what situation you're in?



To be blunt, it's a lot harder than you think. That's why I've prepared this primer on manual photography. If you've ever wanted to know why you should learn it, how much you'll need to learn, or where to get started, this article is for you. I strongly urge you not to listen to the tech heads who will try to tell you manual mode is no longer relevant. It's still very relevant and used by most professionals to this day. Let's go in-depth, and you'll find out why.

(As an example, it's practically impossible to get an image like the one above without using manual mode)

What's wrong with automatic mode? Why isn't it good enough?

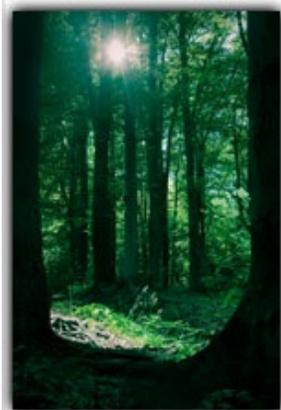
Photography is in an interesting place in our day and age. Cameras have automatic modes that make it easier for us to take good looking pictures, but even the best cameras still make mistakes. No matter how powerful we build them, no matter the number of megapixels, cameras still don't know what we're trying to achieve when we use them. They're smart about some things, like autofocus, but they're dumb about a lot of others.



You know what happens when you assume...

In order for any automatic mode to work, your camera needs to assume a few things about the picture you're trying to take. It might assume that you want to get a nice balance between brights and darks on the patch of light directly in front of you. It may assume that the sun is behind you and not in front of you. Without these assumptions, your camera doesn't know how to take the picture because it can't judge the light coming into the lens.

And that's the problem with automatic modes. Sometimes the assumptions are flat out wrong. Maybe you're shooting into the sun, and you don't want your subject to look like it does to your eye. Maybe you want it to be completely black, a silhouette. If you try to use an automatic mode, your camera assumes that you want something else entirely, and it messes up the shot.



The same principle applies when you're trying to bring out a certain

color in a shot. Maybe you want the leaves on the trees in front of you to have a very intense sort of green. Your camera doesn't know this. It assumes you don't want to give precedence to any particular color, and it gives you back a so-so image that isn't very colorful.

Automatic modes are still light years behind mankind's innate artistic sense. They are made up of programs that detect the light in front of the camera and attempt to make a balanced exposure based on the data, and that's all they do. Someday, perhaps far in the future, we might invent an all encompassing automatic mode that truly does everything right. But such a mode would need to include all of mankind's artistic sensibilities in its programming. You just can't make something like that in a few decades time.

How to get started with manual mode

Chances are that the HAL of digital cameras won't exist in your lifetime. At the very least, it won't exist in the next five years, so you had better start learning manual mode. Thankfully, it's not that difficult. There isn't much more to learning manual mode than what you're already used to as a photographer. You're only adding two more variables to the ones you control, and they are the aperture and shutter speed.

When you use automatic modes, your camera picks these for you. In fact, that's most of the job of an automatic mode. Your camera takes a reading of the light in front of you and then picks a combination of aperture and shutter speed to take the photo. When you start shooting in manual mode, you step in and do that job yourself. You judge the light, figure out what you're trying to do artistically, and then pick the aperture and shutter speeds that are right for the job. That's it.

The best way to prepare yourself for manual mode is to learn how aperture and shutter speed affect the photo you're taking. The aperture is the hole in your lens that light travels through to get to the image sensor on the back, and the shutter is a quick moving curtain that determines how long the image sensor is exposed to outside light when a photo is taken. A change to each of them affects the resulting photo in its own unique way.

Use your other automatic modes to learn more about aperture and shutter speed

To get a better perspective on either one, why not try out your camera's shutter priority and aperture priority modes first? Each mode effectively isolates one of the two variables, allowing you to play with them and see the results. Just for practice, switch to shutter priority mode and take a bunch of pictures at different shutter speeds. Now have a look at them on your computer and see if you can figure out the difference. Do the same with aperture priority mode, trying out different apertures to see how they affect your photos.

Here's what you'll probably notice. Super fast shutter speeds give you crisp photos with no blur, especially when your subject is moving. Super slow shutter speeds, on the other hand, make everything blurry because the camera is shaking every so slightly

as you keep the shutter open longer.

Aperture is a different story. As you increase the f-number on your lens, the resulting image becomes more sharp all around. Meanwhile, a decrease in the f-number gives you what many photographers call a decreased depth of field. In other words, whatever is in front of or behind your subject gets more and more out of focus and blurry. (Want to know more? My excellent Depth Of Field Secrets course explains all about DoF and how to use it with your camera.)

Solve one variable and you'll always get the other

Somewhere in the mix of all these aperture and shutter speed settings is the ideal combination for the photo you want to take. It all depends on what you're going for artistically. Do you want to freeze the action of a soccer game? Pick a fast shutter speed and an aperture



that's wide enough to allow in some more light. Want to get every possible detail in a landscape? First, pick a high f-numbered aperture and then make the shutter speed whatever it has to be to get an even exposure.

Knowing manual photography is all about knowing what you want to achieve first. Almost every picture you take includes something that will tip you off on either the aperture or the shutter speed. It's really a lot like a math equation. Once you have one variable, you can solve for the other. When you think about it this way, manual photography suddenly becomes a lot less complicated.

The material I've presented here is only designed to get you on your way to learning manual photography. If you'd like to learn more, I'll be writing more articles on how to modify your settings to take manual shots soon. You can also download Digital Photography Secrets, my all-inclusive guide to digital photography. Everything you need to know about manual photography is in there.