

# A Training Routine for Focusing SLR Cameras Manually

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Learning how to focus a camera manually is a skill that comes with practice and a certain insight into what you ought to be trying to do. In days of film cameras, one tossed many an exposure into the trash in the course of practicing how to focus. Happily, with a digital camera, it is easier to practice without wasting a ton of film in the process.

Many people are under the mistaken impression that it takes great eyesight to focus an SLR camera accurately. While good eyesight, and a properly adjusted diopter control on the viewfinder, is never a bad thing, you don't have to be "eagle eyed" to learn how to do focus consistently and accurately.

Here's a short training instruction to work with with:

- Start easy: Pick a medium focal length lens, a short portrait telephoto, and preferably a fast lens. (You can do it with a zoom set to a portrait tele focal length too.)
- Place a target about 2m away, separated from foreground and background. The target should be something with some surface texture to work with, or something with a mix of 6, 9, 12, 14 and 18 point font on it (like the front page of a newspaper). Light it adequately for a wide open aperture and short exposure time (about 1/200 second). Lock in the exposure manually so it cannot vary on you.
- Get comfortable with the camera and set it to Manual Focus mode.
- Twist the focusing ring from infinity to closest focus at a medium speed while looking through the viewfinder. Then do the other direction after a short pause. And again and again. Do it slow enough that you can watch the focus transition from blur to sharp to blur, but fast enough that the transition to critically sharp "pops" for a moment as you turn. OBSERVE the focus transition carefully, over and over again.

Get a feel for how much time/how much angular displacement of the focusing ring causes how much focus transition to occur.

The trick is to look at a subject and know the lens well enough to turn the focusing at the speed which makes the sharp moment pop, and be able to stop PRECISELY at that point.

- Start trying to achieve that point of focus ... only turn in one direction and try to stop just once, make an exposure. DON'T look at it immediately on the LCD ... it helps if you turn off the review function. You want to repeat from close limit and from infinity ten times each.

- Then download the image files to your computer and sort them into frame order. Look at them, one at a time, at 1:1 pixel resolution and mark down which are in focus and which are slightly off. Try to remember for each one what you felt as you stopped and made the exposure.

Repeat this exercise until you get nine frames sharp. Then repeat it again doing 20 frame sequences until you get 19 frames sharp. Do as many as you can but DON'T keep going until you get tired: stop and take a break for a little while. The point is to plant in your finger and eye memory how fast to turn the ring and how to stop instantly when you see the point of best focus, just once.

- Once you're doing sequences of 20 shots and getting them all in focus, double the target distance with the same lens and do the same exercise over again. Once you get 20 out of 20 with that repeatedly, you can double the distance again. It gets faster as you go along. By the time you get there, you should set up two more targets so you have three ... 2, 4, and 8m ... and do a couple of sequences where you focus on each one at a time ... put it in the center of the frame so you know which you're focusing on ... and do the same sequence of 20 until you get them all in focus through the sequence repeatedly.

So now you know what it's like to focus that lens quickly and reliably, with your eye alone.

- Change the lens to a shorter focal length (say, a normal focal length). Start at the beginning but use 1.5m as a starting point. Same

rig, same target, different focal length ... the shorter the focal length, the more subtle the focus transition is to observe.

- Keep doing the sequences with shorter and shorter focal length lenses until you get to the shortest lens you have. Realize that when you get down to the 18-20mm range, you have to accept either a slower pace or a few more erroneous focusing frames to "finish" a sequence.

This kind of skill does not take exceptional eyesight. It takes the ability to see the motion of the focus transition 'stop' or pop for an instant and the muscular ability to stop turning the focus ring precisely at that instant. I've been able to get perfect critical focus using it even when my glasses were covered with gunk after a hot session on a sweaty day or I dropped them and could not stop taking photos for one reason or another. All you're looking for is that point of "pop" in focus as the image moves a tiny bit, and to stop your fingers at that moment ... you're not trying to see the details.

I'm sure that if you go through this exercise with calm motivation, you'll find your manual focusing reliability, and speed, improve ten fold in a day. I've been doing this so long and with so many different cameras that it just seems to come naturally to me. First thing I do whenever I fit an unknown lens to my camera is switch to MF and just rack it in and out from infinity to close limit focus a couple of times to "calibrate" my eye and fingers. Within a few moments of that, I'm ready ... I rarely get a bad focus, if I bother to look through the viewfinder and focus at all ...

Which is another story. ;-)