Instructions for AF Fine Tuning a Nikon DSLR

From BJ Photo Labs Limited

For the micro adjustment, I set the camera to

- “Flat profile” and further zero sharpening. (shooting menu > picture style)
- **Very important to set to flat profile**
- AF-S and single point.
- Aperture wide open - e.g. f2.8 for a 2.8 zoom.
- On a tripod preferably with shutter set fast enough, but ISO also fairly low… e.g. 800 ISO or lower

Use a fixed target a reasonable distance away - for example 5 meters - with a fair amount of micro detail. A cereal box with high resolution text and graphics might work.

Take a set of pictures. Each picture with a different AF-Fine tune value. **Setup Menu - AF Fine tune.** Carefully trying each Fine Tune Adjustment value at +1, +2, +3 … 0, and -1, -2, -3 one shot each, de-focusing between shots. To begin with try +12 to -12.

- It is important to take only one shot per setting, and to take them in order.
- Before starting the sequence, it may be useful to take a “blank” or different image. So you know where the sequence 0, +1, +2 starts

And aside - For better consistency with a zoom lens, the mirror-up function of the camera sometimes help. But usually this is not required.

After taking the set of pictures. If using a zoom lens, start at either a full telephoto or wide angle. Press playback button and go to the first image in the sequence. Zoom into 100% magnification. While zoomed in to full magnification, can cursor between shots with the back camera dial. So you can see very clearly the image magnified at 0, +1, +2, +3 and examine which one is better.

- The human discernment of detail is usually better than automated systems available on the market today. But to see the differences more clearly the Flat/Neutral picture profile with 0 sharpening must be used.
- In some cases, it may be difficult to discern some differences and may need to go **one zoom beyond 100% Magnification**. Usually this is helpful with the D850 because its playback interpolation method beyond 100% is quite good. For other cameras it may or may not help.

There are a couple of values which work best … for example for a particular lens +2 and +11 might be the best values for a subject 5 meters away. Try these values at longer and shorter distances. Also try these values at a Wide Angle. It may be necessary to repeat the entire sequence testing at a wide angle for a more complete calibration.

After calibration, test on a variety or practical targets, i.e. with the correction applied compared 0 correction

Set Picture Profile back from Flat to Profile desired (Standard, Vivid, Neutral, Monochrome, Flat)