

DOT-Tune

Autofocus Fine Tuning in under 5 Minutes

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What is DOT-Tune?

- Radically Different AF Tuning Technique
- No More Trial 'n Error with Photographs
- Utilizes your DSLR's Focus Confirmation Dot
- Fast and Accurate
- Free



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Quick Reference Guide

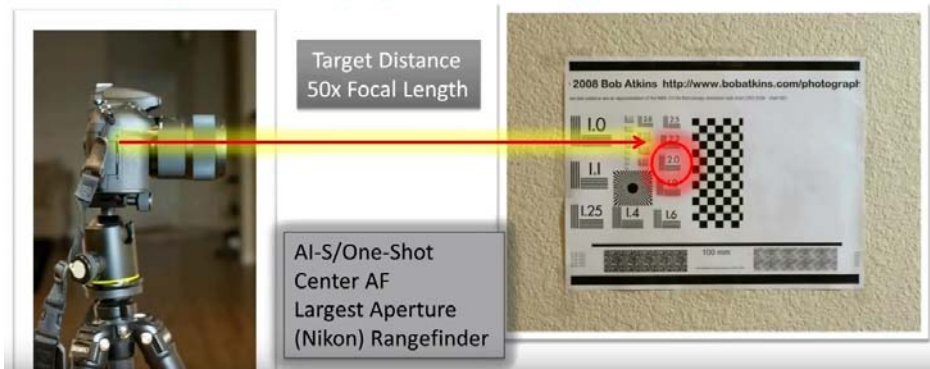
- Step 1. Set up your AF Target and Camera
- Step 2. Establish critical focus in Live view. Exit LV when done
- Step 3. Switch to Manual Focus and set initial AF Tune to 0
- Step 4. Half-press shutter, look in VF for confirmation dot
- Step 5. Cycle through AF Tune values to find range with dot
- Step 6. Set final AF tune value to midpoint of range

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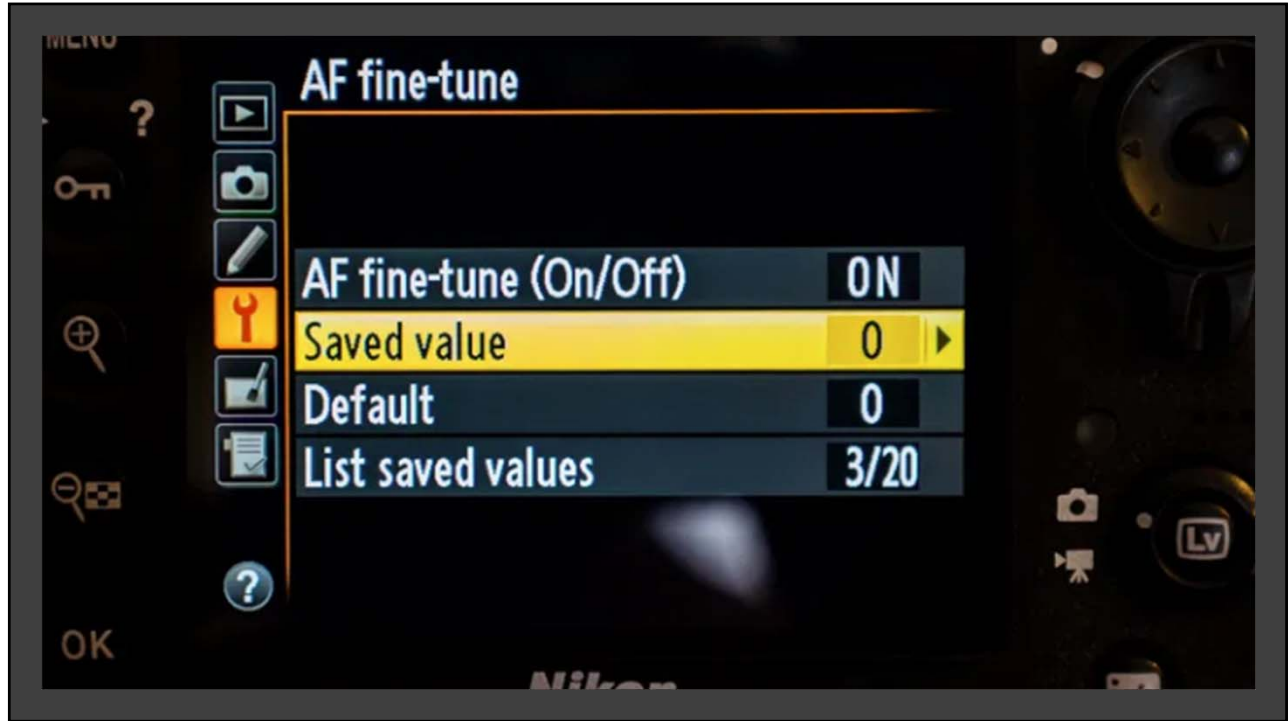


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Step 1 - Set up your AF Target and Camera



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Step 2 - Establish critical focus in Live view

The image shows a Nikon camera in Live View mode. The LCD screen displays a focus point grid with two points highlighted: "2.2" at the top and "2.0" in the center. A hand is visible on the left side of the camera, with a finger pointing towards the "OK" button. The Nikon logo is visible at the bottom of the camera body.

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Step 3 – Switch to Manual Focus and set AF Tune to 0



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Step 3 – Switch to Manual Focus and set AF Tune to 0



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Step 4: Half-press shutter, look in VF for confirmation dot



Focus Confirmations:

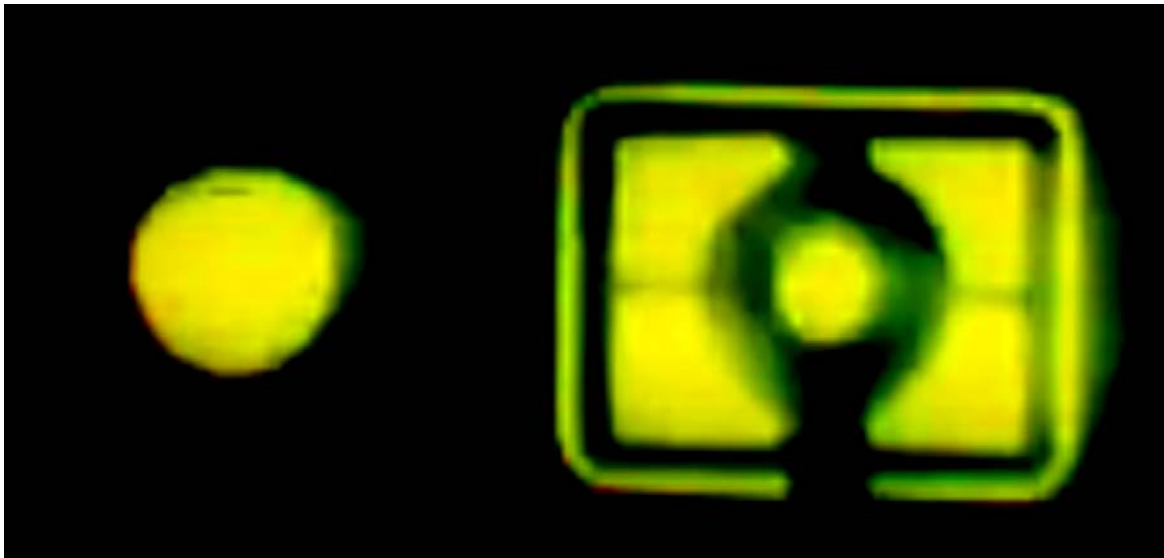
-  Continuous Green Dot > 5 seconds
-  Dot + both rangefinder arrows (Nikon)
-  No lag between shutter and dot

Focus Non-Confirmations:

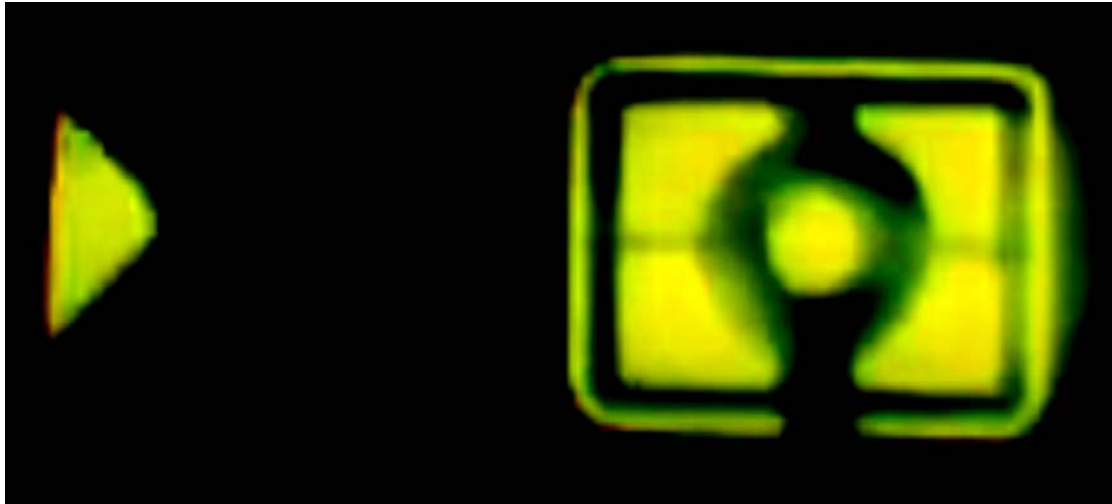
-  Flickering/Wavering Dot
-  No Dot
-  Left or Right rangefinder arrow (Nikon)
-  Shutter Lag/sluggishness with dot

Nikon rangefinder arrow points to the right: Focus is in front of subject, move to a + direction
 Nikon rangefinder arrow points to the left: Focus is behind subject, move to a - direction

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Nikon rangefinder arrow points to the right: Focus is in front of subject, move in a + direction
 Nikon rangefinder arrow points to the left: Focus is behind subject, move in a - direction

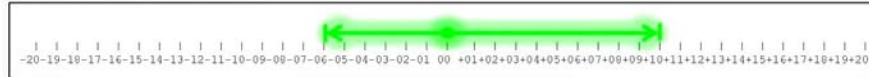
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Step 5 - Cycle through AF Tune values to find range with dot

If AF Tune of 0 is confirmed



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Step 5 - Cycle through AF Tune values to find range with dot

If AF Tune of 0 is confirmed

If AF Tune of 0 is not confirmed, and you discover the range on the plus (+) end

If AF Tune of 0 is not confirmed, and you discover the range on the minus (-) end

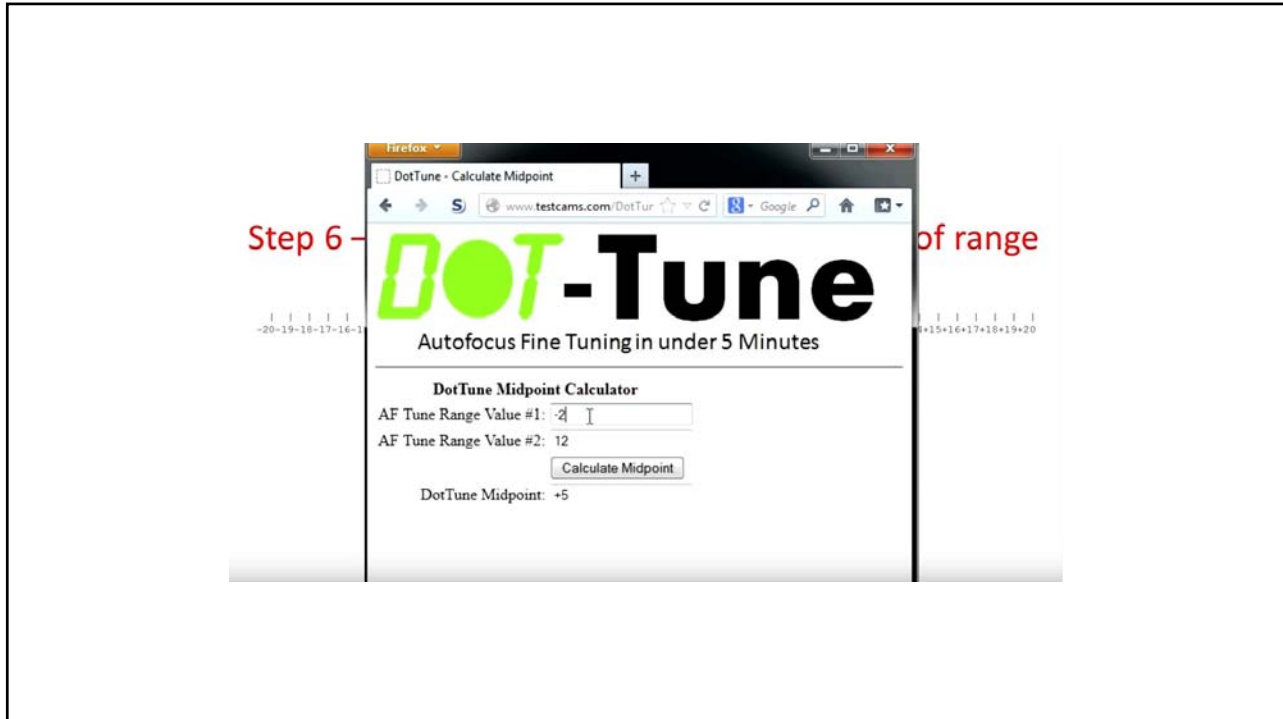
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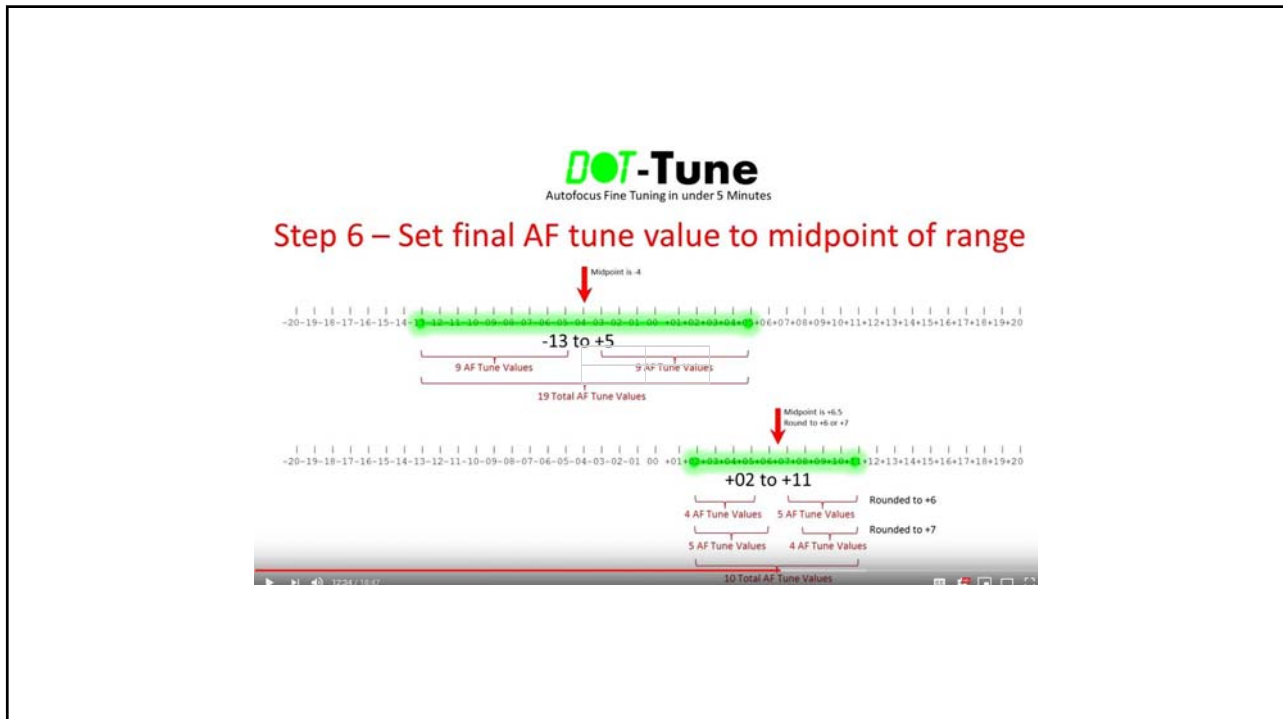
Step 6 – Set final AF tune value to midpoint of range

Midpoint is .4

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Additional Notes

- If either end of AF tune range still gives confirmation at +20 or -20, then either DOF too great or range is too high for tuning. A potential workaround is to slightly defocus lens to bring within +/- 20 to establish the relative range.
- When using back-button focusing on Canon bodies, you must use AF-ON button to trigger focus confirmation. Half-press on shutter wont engage.
- Some body/lens combinations produce different tune values at different subject distances. This is a property of the AF system and not specific to the AF tune method used.
- Remember to be patient and methodical when evaluating whether confirmation is confirmed or marginal, esp. near the margins of the range.
- Don't skimp on the AF target; you'll get a wider tune range if you do

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*** Important Update for Nikon Owners ***

After making this video it was discovered that on Nikon bodies the viewfinder focus confirmation range increases dramatically when the body or lens is changed from Autofocus (AF) to Manual Focus (MF). I believe this is because Nikon wanted to make manual focusing easier and faster by increasing the range of focus that provides a confirmation. However for DotTune this behavior is undesirable because it increases the range of tune values, sometimes beyond the limits of the +20/-20 AF tune scale. Luckily there is an easy workaround, which I strongly advise Nikon owners to use:

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For step 3, do not set your Nikon body or lens to MF. Instead, configure your body for "back-button" focusing. Back-button focusing means that the Autofocus will not be engaged by a half-press of the shutter, which will allow you to perform steps 4 and 5 while leaving the body+lens still set to AF. To configure back-button focusing, set the "AF Activation" option to "AF-ON only". For the D4/D800 this is setup option a4, for the D3/D3s/D700 it's option a5, and for D600 it's option f4 and D7000 option f5 (for D600/D7000 the AE-L/AF-L button will serve as the AF-ON button). Once you've configured back-button focusing, use only a half-press of the shutter in steps 4 and 5 - do not use the AF-ON button since that will engage the AF on the lens. After you've completed your DotTune you can return the camera back to normal shutter-button focusing if desired. Again, do not set the body or lens to MF as described in the video; doing so will increase the confirmed focus range and make DotTune potentially inaccurate.

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[00:51](#) : DotTune Quick Reference

[01:56](#) : Step 1 - Set up your AF Target and Camera

[03:08](#) : Step 2 - Establish critical focus in Live View

[03:35](#) : Step 3 - Switch to MF (excl Nikon) and set AF Tune to 0

[04:18](#) : Step 4 - Evaluating Viewfinder Focus Confirmation

[07:54](#) : Step 5 - Cycle AF Tune values to find confirmed range

[11:42](#) : Step 6 - Set final AF tune value to midpoint of range

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[15:02](#) : Sample DotTune session