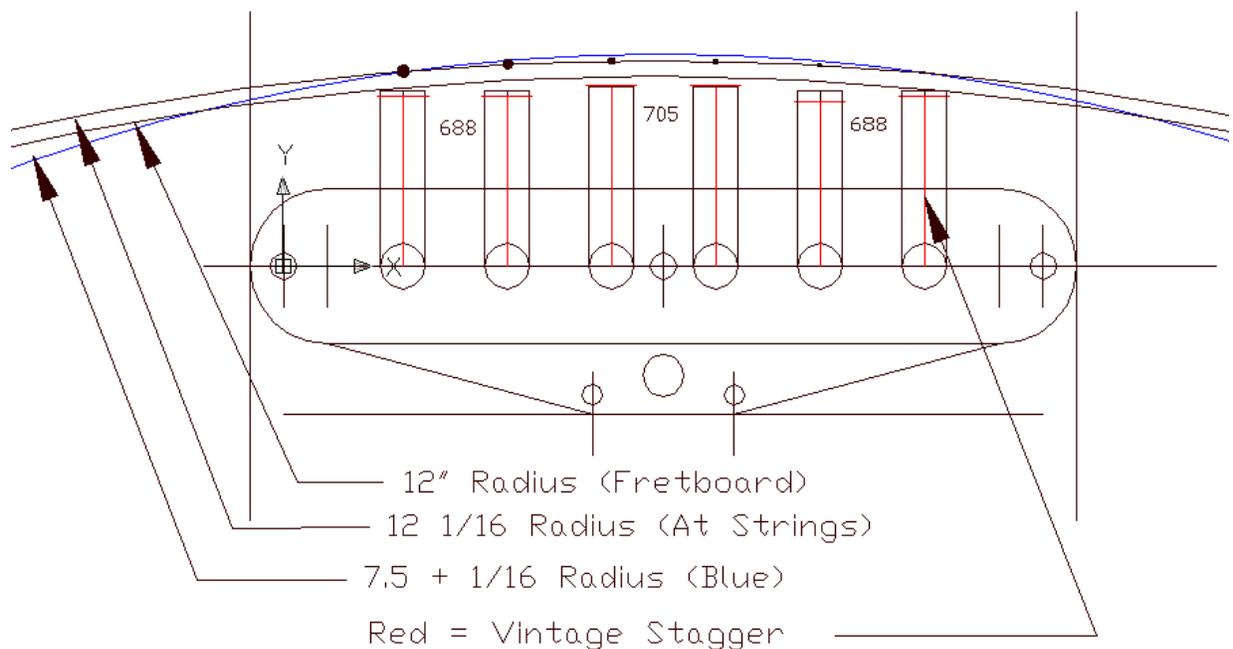


About the updated magnet stagger pattern - This is just a little explanation of some of the reasoning that went into the redesigned magnet stagger pattern I use on many of my single coil (for Stratocaster) pickups. I felt that with the current string gauges that many players use, and with the changes in fretboard radius that are common on many strat like models now, that the vintage stagger pattern could use a little rethinking. Lots of makers just use a flat pole design these days for some of the same reasons, but I think a little bit of stagger makes better sense.

The original idea of the magnet stagger pattern was to compensate for the fact that the poles in this design are not adjustable. Adjustable poles were kind of a big deal in the 50's, mostly thanks to Gibson making a selling point of it in their advertising. Prior to the 70's most players used a lot heavier strings (like .013's) than today. These had four wound strings and two plain. (often they were also flatwound) The vintage Fender pickups were designed for those strings, which is why the B magnet is so short, because the B was too loud compared to the G. The G was softer, because being a wound string it had a smaller core. The outer string wrapping was usually nickel in those days which affects the magnetics less than the steel core does. Hardly anyone uses a wound G string anymore and many players use thinner (slinky) strings such as .010 or .009's. The problem with that is that the smaller strings don't have as much metal and affect the pickup less. So the output from all the strings is a bit less than the pickups would have had with the vintage strings they were designed for. But the difference in the B and G isn't as much as before.



Here's a diagram to illustrate. This is drawn to scale for a set of .010 strings, looking down the strings with the heights of the magnets shown. The red lines are the vintage stagger pattern. The black lines represent my changes. The flatwork is turned at a right angle, it's just for reference. This stagger design matches more closely modern string gauges and gets the magnets up closer to the smaller strings without being so close as to cause excess string pull. It also takes the

fretboard radius into account. The vintage strats that the original magnet stagger pattern was designed for mostly had a 7 ½ inch or 9 ½ inch fretboard radius. This was fine for then, but it meant the middle strings were farther from the pickup relative to the outside strings than today when many guitars' fretboards are made flatter to accommodate bending strings. These distances are small, but remember the magnetic field strength decreases very rapidly with distance from the pole face. So using a vintage stagger pickup in a guitar with a modern fretboard radius can cause the middle strings to be too loud and adds to the problem already caused by the lighter string gauges. Fretboard radiuses today are seldom less than 9 ½ inches, often closer to 12 inches or even 16 in some cases, or compound. If you look at the magnet stagger patterns available in most pickups today it pretty much comes down to vintage stagger or flat poles. Many makers have gone to the flat pole design, so we know that works. I took all those factors into account and used a 12 inch fretboard in laying out this magnet stagger. It's like a flat pole design but with the center two magnets raised, though raised slightly less than the vintage amount. This is nothing too radical but gives a more balanced output compared to either vintage stagger or flat poles.

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