

A Quick Tip for Seating Transmissions by Bob Swartzendruber

It's not just beginners that have problems with slimline kits when they go to install the transmission. We've all pressed one in a little too far, and it's no fun trying to fix that problem.

The standard solution is to cut a V in a block of wood, and cut the block to the length of a slimline pen lower barrel with the transmission installed properly. Put the pen being assembled in the V and press in the transmission until the press is stopped by the block of wood.

Well, that works ok most of the time, but I found it awkward to do and sometimes still didn't get the right dimensions. A few years ago it wasn't unusual for me to do 50 or 60 pens every weekend, and I needed a more reliable way to seat the transmissions. I also needed a faster way to do it.

It's really pretty simple. Buy a 1/4-20 bolt that's 2 1/2 or 3 inches long, and a matching self locking nut with a nylon insert. I prefer to use a carriage bolt. Thread the nut onto the bolt to cut threads into the nylon insert. Remove the nut, turn it around, and thread it back onto the bolt with the nylon insert first, i.e. towards the head of the bolt. Thread the nut onto the bolt until the dimension from the end of the bolt to the nearest surface of the nut is 1.77 inches. You can adjust that dimension to expose more or less of the tip of the refill, but 1.77 inches is a good starting point.



Assemble the cap of the pen as you normally would. Now pay attention and don't get ahead of me here: Do NOT install the tip in the lower barrel. Instead slide the tip end of the barrel over the 1/4 inch bolt, sliding it down until it sits on top of the nut. Put the transmission in place on the other end of the barrel and press it in until it bottoms out on the end of the 1/4 inch bolt. Take the barrel, with transmission, off the 1/4 inch bolt.

Important! Put the pen cap over the transmission before you press in the tip of the pen. Otherwise you could press the transmission in further. Install the cap and then press in the tip. Remove the cap, install the refill, replace the cap, and you're done.