

SLIMLINE PEN & PENCIL

Instructions

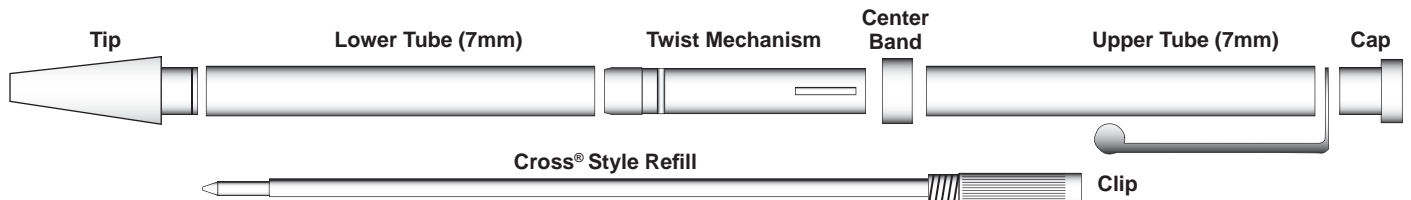
Kit Features

- Affordable
- Easy to turn and assemble
- A variety of different accessory clips and center bands are available
- Turn straight “bushing to bushing” or with whatever artistic flair you choose

Required Accessories & Materials

- 7mm mandrel
- 3-pc. Slimline bushing set (SLIMBUSH)
- 7mm drill bit (DB7MM)
- 7mm barrel trimmer or belt sander to square the ends of the blanks to the tubes
- Glue (We recommend the thick “gel” CA glue—GTHICK2)
- Sanding and finishing supplies

Diagram A - Pen Parts and Assembly



BLANK PREPARATION

Both tubes in a Slimline kit are 2-1/32" long. **Cut** your blanks approximately 1/16" longer than the tube to allow for squaring with the barrel trimmer. If using wood blanks, mark the blanks so it is easier to keep the grain running in the same direction when you place them on the mandrel for turning. Use a medium drill speed to **drill** the blanks. Raise the bit from the blank every 1/4" to 1/2" to allow the chips to clear from the flutes of the drill bit. Don't force the drill bit; use an even pressure and let the bit do the work. After drilling the blanks, **sand** the exterior of the brass tubes to roughen their surface and use CA **glue** to glue the tubes inside the blanks. Sand or barrel trim to **square** the ends of the blanks.

TURNING THE PEN AND PENCIL

Set up the mandrel as shown in Diagram C. In a Slimline pen and pencil, all the bushings are the same size. **Turn** the blanks down to the bushings, then **sand** with abrasives and **finish** with your choice of polish.

Diagram B - 7mm Bushings



ASSEMBLY

(Line up finished parts according to Diagram A)

To avoid damage to components when assembling, use a vise with covered jaws or one of WoodTurningz' pen presses.

1. Press the tip into the end of the lower pen barrel.
2. Press the twist mechanism into the opposite end of the lower barrel. **Note:** The line on the mechanism is only a guide. Pressing it too far may cause your pen not to fully retract. Press the mechanism in just short of the line, then screw the refill in, and check it. Take the refill out, press a little more, and check it again. Repeat this until the fit is perfect. A stop can also be made to the proper length that will stop you once you are at the proper depth.
3. Insert the refill through the upper end of the twist mechanism and screw it in.
4. Place the center band over the exposed end of the twist mechanism.
5. Insert the cap through the hole in the clip and press the cap into the top end of the upper barrel.
6. Slide the top end of the pen over the exposed end of the twist mechanism.

Diagram C - Turning the Pen/Pencil

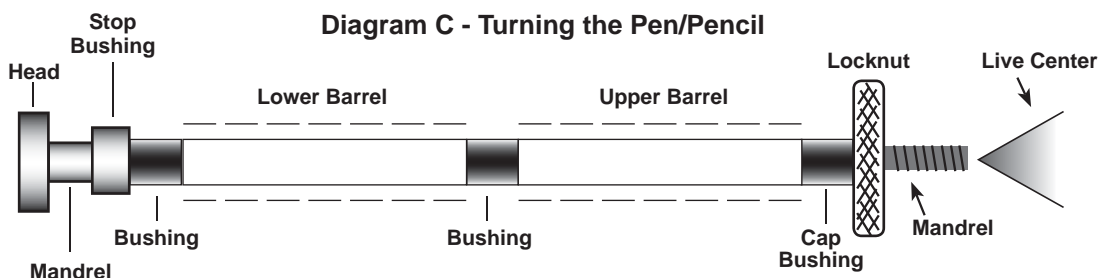
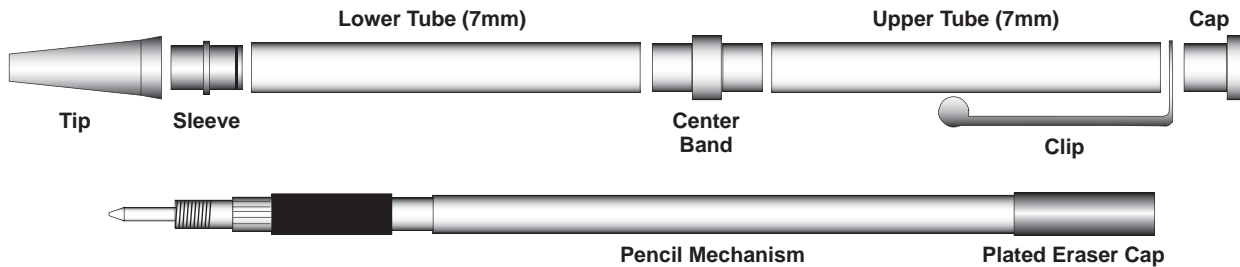


Diagram A1 - Pencil Parts and Assembly



PENCIL ASSEMBLY

(Line up finished parts according to Diagram A1)

1. Press the cap through the clip and into the narrow end of the upper barrel. The clip tension may be relaxed by bending it slightly outward prior to assembly.
2. Place the pencil's center band into the upper barrel; press in. Press other side into the unexposed side of the lower barrel.
3. Press the sleeve into the tip end of the lower barrel. **Caution:** One end of the sleeve has an insert line or bevel. The other end will not provide a pressed-in fit. Press the end with the insert line or bevel into the barrel.
4. Insert the pencil mechanism through the open cap until the thread is showing at the other end of the pencil. Thread the tip onto the mechanism.
5. Click the plunger to advance the lead.
6. To fill the pencil with lead, pull out the plunger and eraser and drop the lead inside the storage compartment. Plunge until the lead comes through the tip. **Note:** If lead does not advance properly or retracts when writing, gently pull exposed short piece of lead out of mechanism. Continue to pump pencil plunger until a new piece of lead is exposed. The completed tube assembly must be straight or else the mechanism will bind.