

# Personal Ballpoint Pen Kits Assembly Instructions

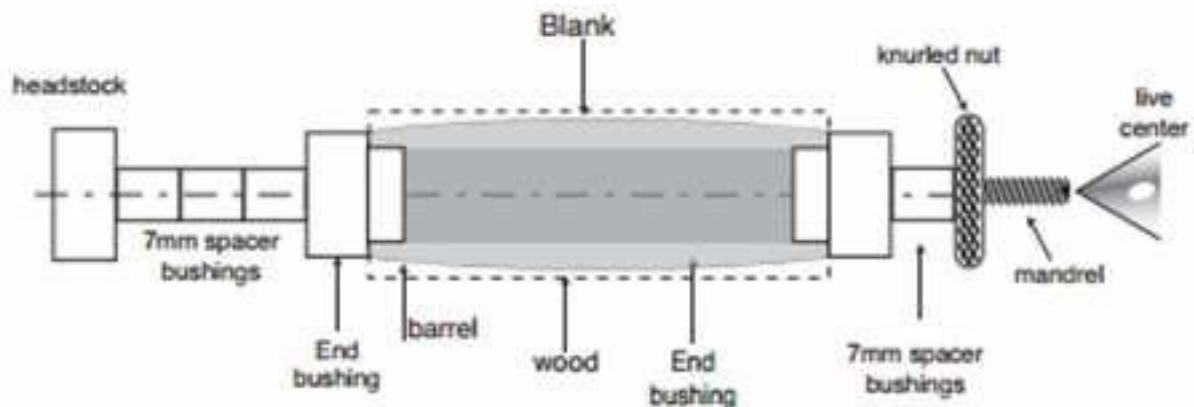


## Required Accessories:

- 7mm pen mandrel
- 2piece Bushing Set
- 3/8" Drill Bit
- Universal Barrel Trimmer 3/8 shaft
- Live Tailstock Center
- Glue (Thick CA or Epoxy)

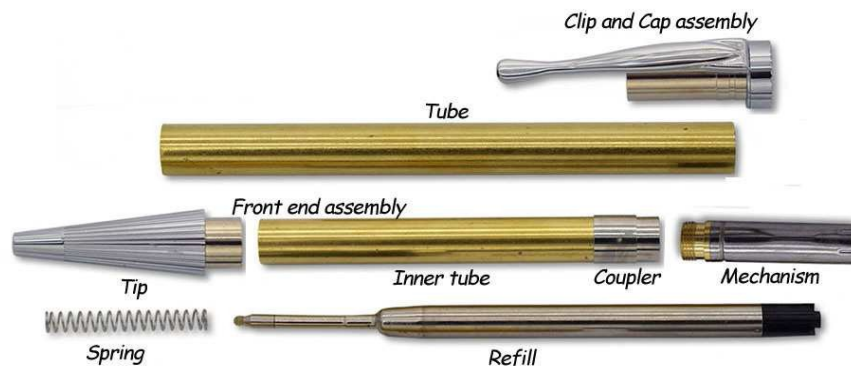
## Preparing the Blanks:

- Cut one pen blank to the length of the brass tube (add 1/16" for trimming).
- Drill a 3/8" hole lengthwise through the blank.
- Spread the glue over the tube. Insert the tube into the blank with a twisting motion to spread the glue evenly inside. Center the tube lengthwise in the blank.
- When the glue dries, Square the end of each blank. Use a Barrel trimmer with 3/8" shaft or a universal pen blank squaring jig with a power disc sander. Take the wood down to the brass tube. Do not trim beyond the length of the tube since this may interfere with operation of the mechanism and assembly. Use the barrel trimmer shaft to clean the inside of the tube.



## Turning the Blanks:

- Mount the bushings and blanks on the mandrel .
- Thread on the knurled nut and hand tighten to hold all components in place.
- Slide the tailstock up snugly against the mandrel shaft inserting the live center point into the mandrel dimple, lock in place.
- Hand tighten the quill adjustment to firm up the mandrel. (DO NOT overtighten, it could damage the mandrel.
- Using sharp tools, turn the blank down close to the bushing diameter. Turn the barrel (straight or to a profile of your choice)
- Sand the blank down to be flush with the bushings gradually increasing the sandpaper grits.
- Finish the barrel with your choice of polish. Allow sufficient time for the polish to cure. - refer to polish instructions.



## Assembly

- Layout parts according to diagram above.
- Press the cap/clip assembly into either end of the barrel.
- Press the inner tube with coupler into the tip.
- Affix the spring over the refill end. Drop into the opening at the front end assembly.
- Thread the mechanism over the refill end.
- Engage and slide the barrel assembly over the front end assembly. Push the barrel to the shoulder. (or to close the space)
- The pen operates by twisting either end of the pen to advance or retract the refill tip.