

## Polaris Pencil Kits Assembly Instructions

### Required Accessories:

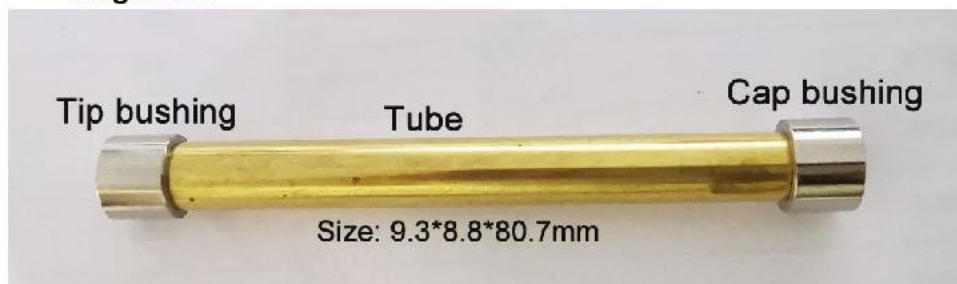
- 7mm, long mandrel
- 3/8" drill bit
- barrel trimmer
- Polaris Bushings
- 2 part epoxy glue or insta-cure (cyanoacrylate)
- Sanding and finishing supplies



### Preparing the Blank

- Prepare a master blank of at least 5/8" square. Cut to the length of the brass tube (add 1/16" for trimming).
- Drill a 3/8" center hole through the blank.
- Glue the tube in the blank. Spread the glue over the tube; insert the tube into the blank with a twisting motion to spread the glue evenly. Center the tube inside the blank.
- Sand or barrel trim to square the ends of the blank

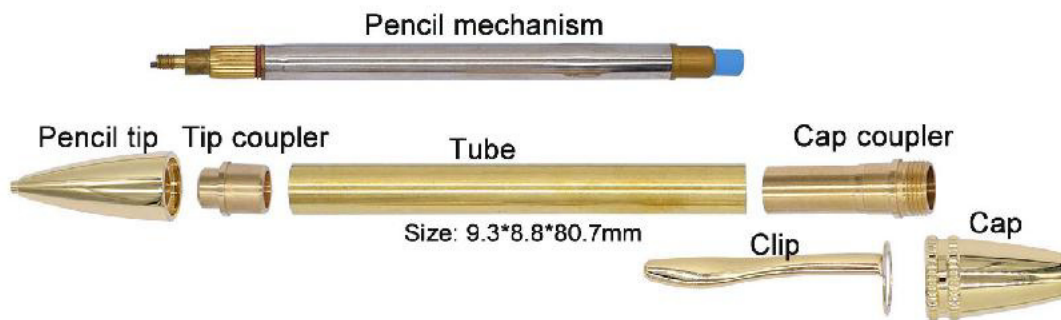
#### Diagram A



### Turning the Blanks (see Diagram A)

- Mount 7mm spacer bushing on the mandrel, followed by the tip bushing; wide end first. Insert the blank. Follow with the cap bushing; narrow end first. Mount spacer bushing to fill the space to the threads on the mandrel. Screw on the knurled nut hand tight. Bring the tailstock in snug to the mandrel and tighten the knurled nut for turning. Do not overtighten the knurled nut, it may damage the mandrel.
- Turn the blank down close to the bushings. Follow with abrasives until the barrel diameters are flush with the bushings.
- Finish with your choice of polish.

### Assembly



## Diagram B



- Insert the clip into the cap coupler, then press the cap coupler into one end of your finished blank.
- Insert pencil mechanism into the tip coupler, then screw the tip to the pencil mechanism securely, the tip need to be tightened, see Diagram B.
- Push pen tube with the cap assembly onto the tip and pencils mechanism assembly.
- Screw the cap to the cap coupler well.
- The pencil is now ready to operate, twist clockwise to open. It should be noted that the pencil mechanisms come from the factory with the lead already installed, so all you have to do is turn the finished pen until the lead is exposed for writing.