

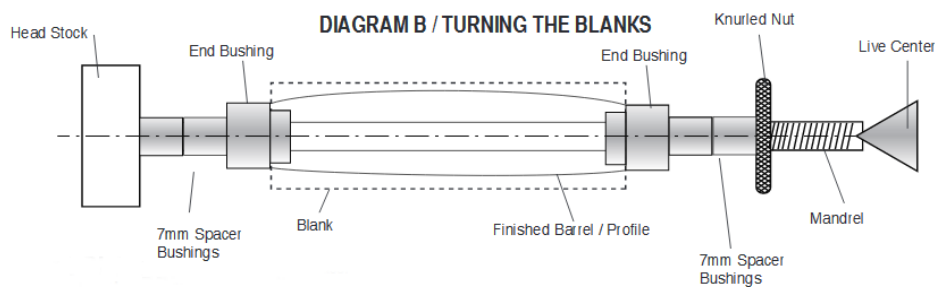
## LED PENLIGHT KITS ASSEMBLY INSTRUCTIONS

### Supplies Needed

- 7mm Pen Mandrel
- 12.5mm Drill Bit RZ-DB125
- Set of Bushings RZ- BPTS198#-BU
- Barrel Trimming Set
- Glue (Thick CA or Epoxy)
- Sand paper/Finish
- Drill or Drill Press
- Pen Press or Clamp
- Eye and Ear Protection

### Preparing the Blank:

- Cut a blank to the length of the tube and add 1/16" for squaring off.
- Drill a 12.5 mm hole lengthwise through the blank.
- Spread glue over the tube, insert the blank with a twisting motion to spread the glue evenly inside.
- Center the tube lengthwise inside the blank.
- When the glue is dry, square the ends of the blank. Use a 7mm barrel trimmer with the listed sleeve, or a universal pen blank squaring jig with a power disc sander. Take the excess material down flush with the ends of the brass tube. Do not trim beyond the length of the tube.



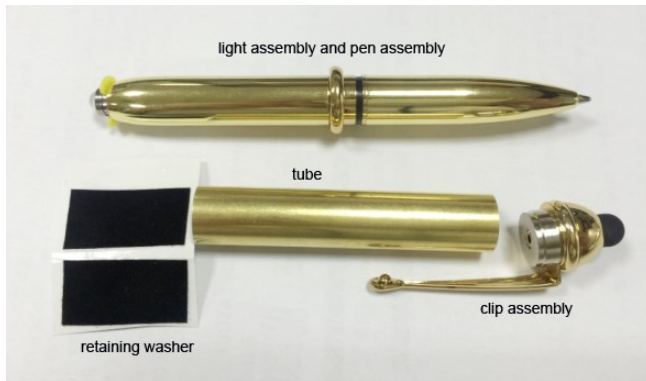
### Turning the Blank

- Mount the bushings and blanks according to diagram B.
- 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).

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- 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.

**Diagram A**



**Diagram B**



### Assembly

Tear off the two retaining washers, insert and glue them into the opening of the barrel (See diagram C)

### To change the mini refill:

Unscrew the light end of the assembly. Unscrew and remove the refill, replace.



### To change batteries:

remove the light end of the assembly. Unscrew the battery holder from the LED holder. Remove and replace 3 batteries. Insert with (+) side towards the LED. Reassemble with spring in place.

