

# 7 mm Letter Opener Kit Assembly Instructions

## Features :

GOLD OR CHROME PLATING

- Overall length : PKLO = 5-3/4 inches  
PKLO2 = 6-3/4 inches

## Step 1 - Cut Wood Blank

You may use any thickness from 5/8" to 1" square stock, cut blanks to the length of the tube plus 1/8". Grain should run lengthwise.

## Step 2 - Drill the Wood Blank

Drill a centered hole lengthwise through your blank. Excessive pressure will cause the drill bit to wander and/or split the blank. Slow the feed rate and back the bit out repeatedly for chip removal. For best results you can use a 7 mm twist drill bit or brad point drill bit (7 mm=.2756 dia.). If not available, use a 9/32 (.2812 dia.) bit - although slightly larger than the 7 mm bit, you will get acceptable results.

## Step 3 - Glue the tube into the blank

Use epoxy or a gap filling cyanoacrylate (super glue), to glue the tube into the blank. Coat the outside of the tube, then insert into the blank with a twisting motion to spread the glue until flush. Allow it to dry.

## Step 4 - Square the ends

With a barrel trimmer, disc or other sanding device, square the ends of the blank 90 degrees to the ends of the brass tube as needed.

## Step 5 - Turn the wood blank

Install the blank on a turning mandrel with a bushing against each end. Tighten the nut snugly and bring the tailstock center firmly against the end of the mandrel. Turn the handle to any shape that will give you the appearance desired.

## Step 6 - Sand

As with any sanding, progress through a range of grits. The type of wood used and the quality of the beginning surface will dictate your selection.

- 80-100 grit if rough surface or additional shaping is needed (overly thick)
- 120-150 grit if fairly smooth and straight
- 220-240 grit for final finish with most domestic woods
- 320-400 grit especially on dense or oily exotic woods

Scotch Brite® works well and doesn't tend to scratch. Sand with blank spinning. Do your final sanding with the grain and the lathe off.

## Step 7 - Finish

Try a finish of your choice but be careful if brushing on a poly, etc., you could stick the tube, bushings, and mandrel together. The following friction polish works well on most woods.

1/3 wood alcohol (methanol), 1/3 white/clear shellac, 1/3 boiled linseed oil.

Mix equal parts of the three ingredients in a bottle and shake before using. Apply with a rag to the spinning tube. Apply two coats. Remove the tube from the mandrel.

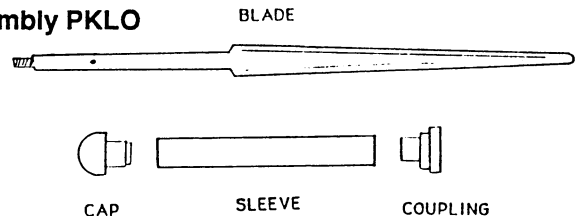
## Step 8 - Touch up

If necessary, a light sanding of the handle ends on a block will square them and improve the fit during assembly.

## Fabrication aids

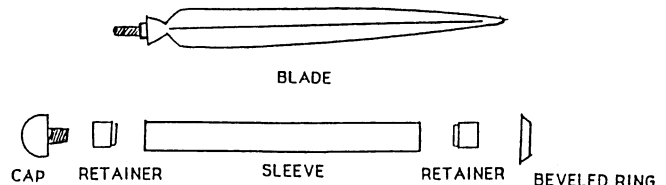
Drill bits, mandrels and bushings are available from your supplier. PKLO uses standard 7mm bushings, and PLKO2 uses PKMONT-BUSHINGS.

## Assembly PKLO



- a) Line up end cap, sleeve (wood tube) and threaded coupling.
- b) Press components (above) together gently with your vise.
- c) Screw letter opener blade into coupling.

## Assembly PKLO2



- a) Line up the two retainers with the sleeve (wood tube), making sure that the chamfered ends are against the sleeve.
- b) Press the components gently with a vise.
- c) Screw cap into one end of the sleeve and the blade into the other end.
- d) A drop of glue may be applied to all mating parts to ensure a permanent joint.