

## MULTIFUNCTION PEN

### Instructions

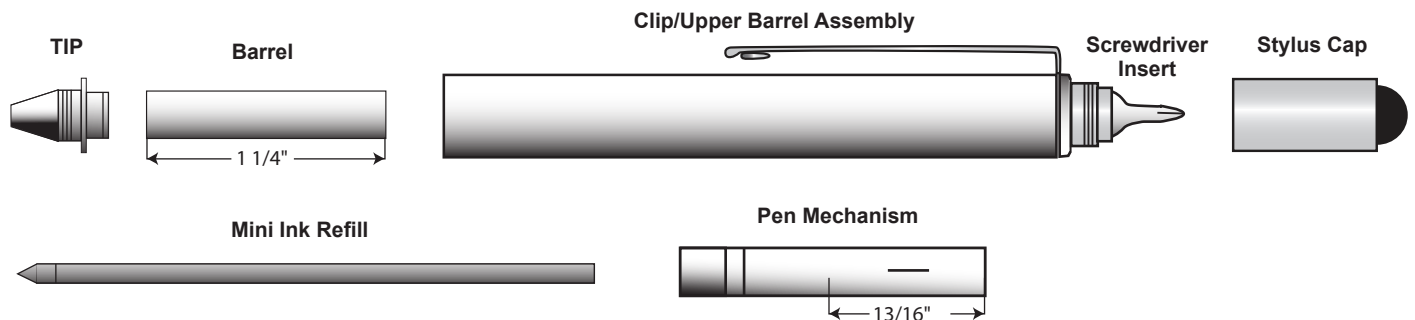
#### Kit Features

- Lightweight, small, and compact
- Uses mini style refills (RE-MINI)
- Pen mechanism with locking refill device
- Overall size: 5-1/4"

#### Required Accessories & Materials

- 7mm mandrel
- 2-pc. 7mm bushing set (PKMULTI-BU)
- 7mm drill bit (DB7MM or DB7MMCT)
- 7mm barrel trimmer (PK-TRIM7)

#### Diagram A - Parts & Assembly



#### BLANK PREPARATION

**Cut** your blanks approximately 1/16" longer than the tube to allow for squaring with the barrel trimmer. Use a medium drill speed to **drill** the blank. 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

**Set up** the mandrel as shown in Diagram C. **Turn** the pen blank to the larger bushing diameter at the ends (as shown in figure C). **Cut** a tenon on the barrel by making a mark 1/16" from the end and use your parting tool to cut the tenon down to the diameter of the bushing (as shown in figure D). **Sand** with abrasives and **finish** with your choice of polish.

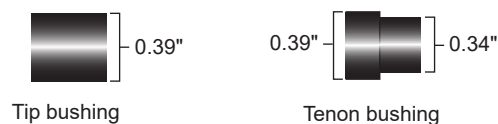
#### ASSEMBLY

(Line up finished parts according to Diagram A)

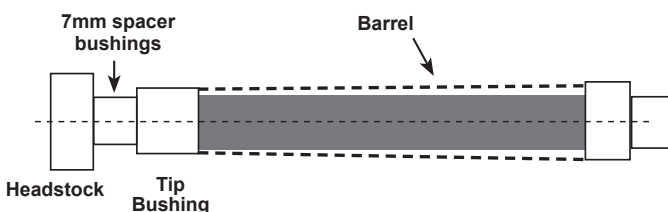
*To avoid damage to components when assembling, use a vise with covered jaws or one of WoodTurningz' pen presses.*

1. Press the tip into the lower barrel. Press the pen mechanism, brass end first, into the opposite end of the barrel. Stop when 13/16" of chrome is showing outside the barrel (see Diagram A).
2. Insert the mini refill into the refill guide as far as possible. Turn the pen mechanism counterclockwise to advance the inside threads upwards.
3. Insert the refill assembly and thread inside using the knurled end. 3/32" of the refill guide will show outside the chrome. Check the extension of the refill tip for exposure.
4. Press this assembly into the upper barrel.
5. The pen is ready to use by twisting the barrels to extract or retract the refill tip.
6. Twist off the stylus cap to expose the screwdriver bits.

#### Diagram B - Bushings



#### Diagram C - First Turn of the Pen



#### Diagram D - Second Turn of the Pen

