



Pen and Pencil Kits

Woodcraft's Pen and Pencil Kits make elegant gifts. Whether you're a novice turner or a pro, you'll find they're quick to make and easy to finish. Please read and familiarize yourself with the General Instructions first, then follow the detailed instruction below.

1 Cutting Blanks

Cut wooden blanks to measure $\frac{1}{2}$ " x $\frac{1}{2}$ " x the length of the brass tube plus approximately $\frac{1}{4}$ ".

2 Drilling Blanks

Using a 7mm drill bit, center and bore a hole through the complete length of the blank.

3 Gluing Blanks to Barrels

See General Instructions for details.

4 Sanding Blanks to Length

See General Instructions for details.

5 Mandrel Preparation

See General Instructions for details.

Slide a bushing onto the mandrel. Slide the first blank onto the mandrel followed by another bushing, the second blank and the last bushing. Secure the blanks with the mandrel nut and washer.

6 Turning Blanks

See General Instructions for details.

7 Finishing the Barrels

See General Instructions for details.

8 Pen Assembly

All parts should be press fit with a machinists type vise. Protect all plated metal parts from scratches by covering with a cloth or thin pad before placing in the vise.

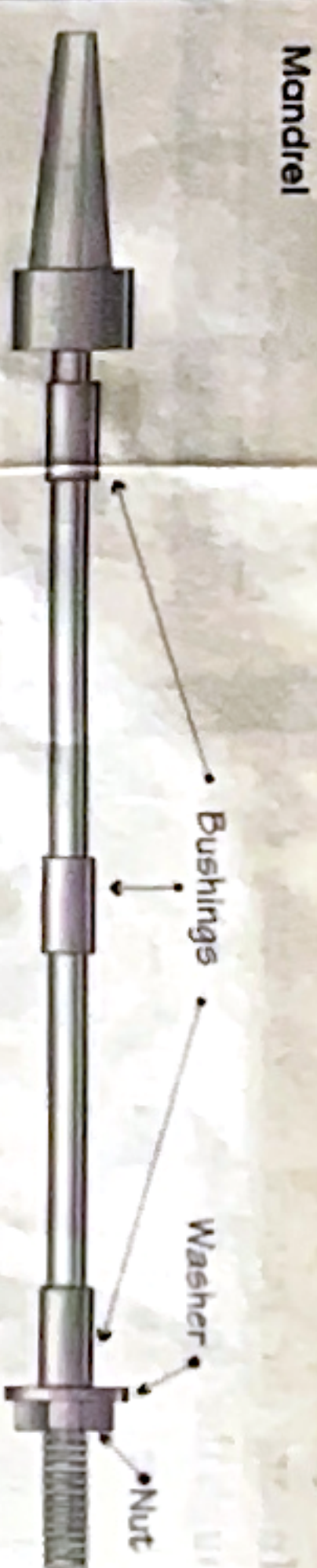
1. Gently press the pen clip/cap (1) into the upper barrel (3).

2. Install the tip (7) into the lower barrel (6).

3. Insert the pen twist mechanism (5) threaded end into the lower barrel (6) until the small indentation is just covered. See "Special Instructions" for additional installation information.

4. Slide the brass ring (4) down the pen mechanism until it meets the lower barrel (6).

(cont. back side)



5. Insert and screw the pen mechanism (2) into place.
6. Press the upper barrel (3) down the pen mechanism until it is seated with the brass ring (4).

7 Pencil Assembly

1. Press the brass insert (2), chamfer end first, into the lower barrel (3).
2. Press the pencil clip (6) and the pencil cap (7) together.
3. Press the clip/cap assembly (6/7) into one end of the upper barrel (5).
4. Press the brass center ring into remaining lower (3) and upper barrel (5) openings.
5. Insert the pencil mechanism (8) through the open clip/cap end of the upper barrel (5) and finger tighten the tip (1) onto the threaded end of the pencil mechanism (8).
6. The lead is advanced by pushing and releasing the plunger.

Operation of Pencil - Each pencil has been factory tested. Lead (.5mm) has already been advanced into the mechanism and it is ready to use. Occasionally, the lead will only advance a few clicks. This is generally caused by broken lead. To replace

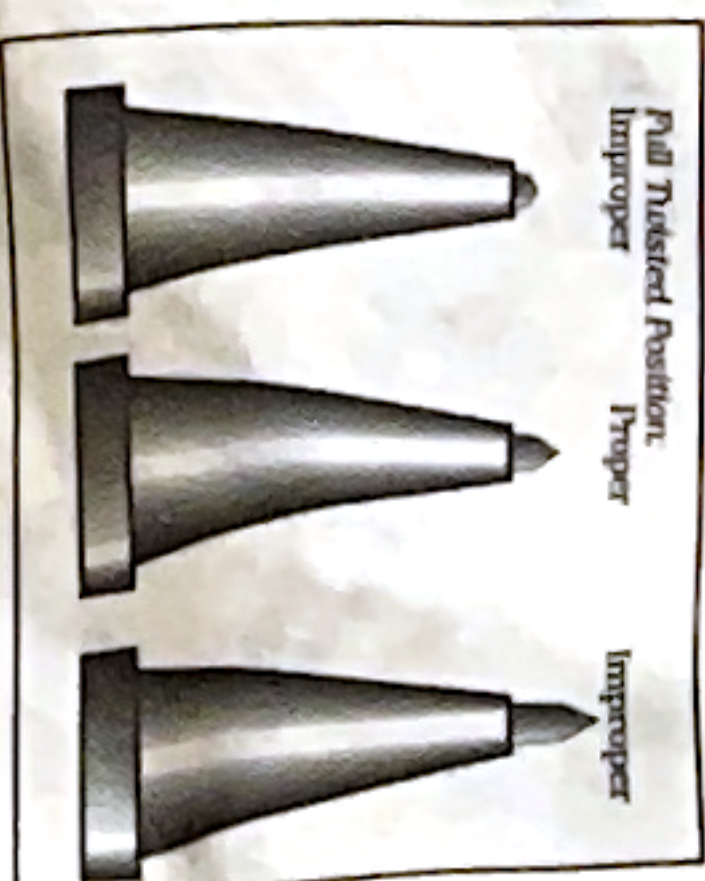
the broken lead simply pull it out from the tip and click a new lead into place.

10 Special Instructions

Due to the variable length of replacement "Cross-type" pen refills, we recommend the following procedure be followed when assembling pens. To ensure a proper fit you may want to buy a Cross refill and use it as a guide while fitting parts together.

The fit of the twist mechanism is critical in determining the distance that the pen tip extends from the pen body. To ensure correct refill tip extension, the twist mechanism must be pressed into the lower barrel slightly past the small indentation (as opposed to just covering the indentation). When performing this step be sure that the twist mechanism is not seated too deeply or the refill tip will not retract fully into the pen body.

Remember, the twist mechanism placement is a trial and error process and should be tested as you proceed to ensure proper depth of seating. If you proceed slowly, utilizing the illustration (right) and/or replacement pen refills, your custom made pens will perform properly regardless of the pen refill utilized.



Additional Parts:

06R68	replacement pen barrels (10)	\$2.95
06R78	replacement pencil barrels (10)	\$2.95

To Order Additional Parts Call: 1-800-225-1153
For Technical Advice Call: 1-304-464-1074

WOODCRAFT

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Parker Style Pens



The following instructions describe the process of turning Parker Style Pens. Please read and familiarize yourself with the General Instructions first.

1 Cutting Blanks

Cut 2 wood blanks $\frac{5}{8}$ " x $\frac{5}{8}$ " x $2\frac{3}{8}$ " long.

2 Drilling Blanks

Using a letter "O" brad point drill bit, drill a hole lengthwise through the center of each blank.

3 Gluing Blanks to Tubes

Prepare as described in the General Instructions.

4 Sanding Blanks to Length

Prepare as described in the General Instructions.

5 Mandrel Preparation

Mount the tube blanks on your lathe mandrel and turn to bushing dimensions. All three bushings are identical, but proper placement will enable you to

turn to the dimensions required for the pen top and bottom. Place the first bushing on the mandrel with the "large" diameter on the headstock side of the mandrel. Slide a blank onto the mandrel and over the lip of the first bushing. Place the second bushing on the mandrel with the "small" diameter oriented toward the headstock and slip the bushing lip into the first blank. Place the second blank on the mandrel, followed by the third bushing with the "large" diameter oriented toward the headstock. In this configuration, the blank closest to the headstock is Tube #1 (the pen bottom) and the blank closest to the tailstock is Tube #2 (the pen top). The smaller Parker Pen washer provided with the Parker Pen bushing set should replace the large washer supplied with your mandrel when turning Parker Pens to prevent possible damage to the "lip" of the Parker Pen bushings.

Tip: Mark or identify your bushings so that you can use them in the same mandrel position each time and avoid damaging the bushing lip when the washer and nut are tightened.

6 Turning The Blanks

The diameter of Tube #1 must exactly match the bushing diameter. If this diameter is not precisely obtained, the wood of Tube #1 will rub or bind on pen's center ring (H) when assembled and your pen will not operate properly. A portion of the wood on the pen top, Tube #2, must be parted off for pen assembly. Measure a distance $\frac{1}{8}$ " from the point where Tube #2 meets the bushing and part this $\frac{1}{8}$ " section of material from the brass tube. Be careful not to damage the brass tube and if necessary clean any remaining wood/glue from the tube by hand prior to pen assembly.

7 Finishing The Blanks

Prepare as described in the General Instructions.

8 Pen Assembly

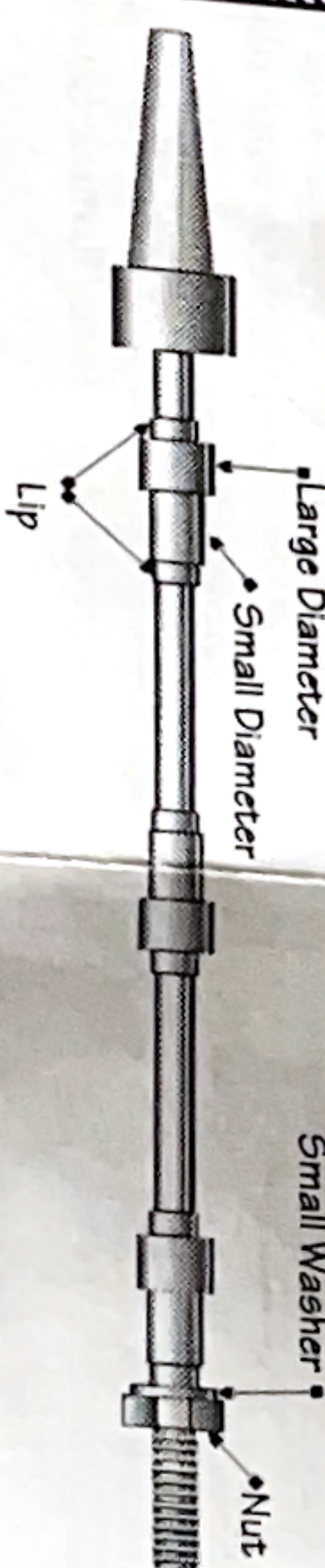
1. Push fit the gold tip (A) into the black tip center (B).

If you are assembling a Wood River Gold Parker Pen the gold ring consists of three pieces as shown in the Wood River Gold Parker Parts diagram. Push fit the gold tip (A) into the black tip center (B). Slip the stepped gold ring (C1) over the opposite end of the black tip center (B), followed by the small black ring (C2), then the small gold ring (C3). Press the entire assembly into one end of tube #1.

Slide the gold ring (C) over the opposite end of the black tip center (B). Press this entire assembly into one end of tube #1 (D).
2. Press the smooth end of the twist holder (E) into the other end of tube #1 (D).

(cont. on back side)

Mandrel

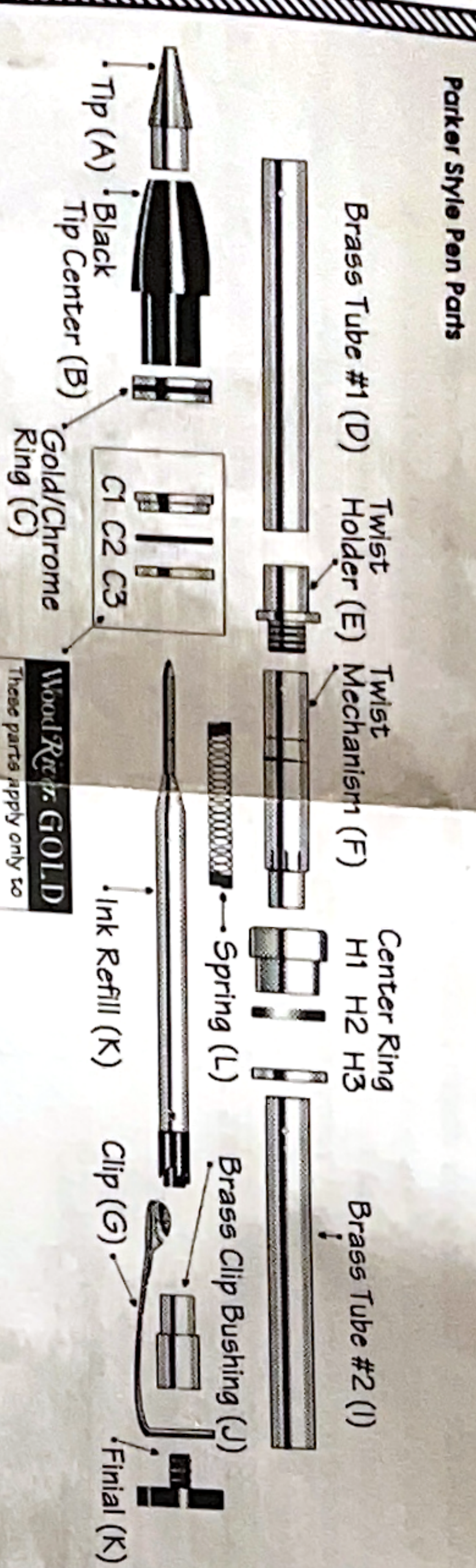


(cont. from front)

3. Place the spring (L) over the narrow end of the ink refill (K) and insert the refill and spring into Tube #1.
4. Screw the twist mechanism (F) onto the twist holder (now pressed into Tube #1) and secure tightly.
5. The Center Ring, part (H), consists of three pieces as shown in the parts diagram. Slip the small, black plastic ring (H2) onto the main center ring

component (H1), followed by the small gold ring (H3). This three piece assembly now becomes the Center Ring (H). Press the center ring (H) onto the brass, parted end of Tube #2 so that the flat side of the center ring (H) is pressed against the wood of Tube #2. If the center ring is loose, we recommend carefully gluing it into place with CA glue.

6. Slip the partially assembled cap, center ring first, on and off of the twist mechanism (F). The cap



should freely slip on and off of the twist mechanism (F), with **NO** rubbing or binding whatsoever. If you feel any resistance, use a small round file and carefully file the interior of the brass Tube #2 (I) on the center ring end. In some cases, pressing the center ring onto the brass tube results in a fit which is too tight and this slight filing will be required to create interior clearance necessary for proper pen operation. You should also check the area where the center ring (H) rubs against the pen bottom. Any interference here will cause the pen to bind and not operate properly. With proper clearance, you should be able to see a slight gap around the entire circumference of the pen where top and bottom meet in the center ring (H). We have found that a careful scraping action can be used to "shave" some wood the end of the pen bottom and create this clearance if necessary. Extreme care must be taken to avoid scratching/damaging the twist holder.

7. Once proper clearance is obtained place the partially assembled cap over the twist mechanism (F) and align the grain pattern of the pen's top and bottom. Insert the Brass Clip Bushing (J) stud end first

into the top of the cap assembly. Using a clamp or vise (the vise used must open approximately 6"), press the Brass Clip Bushing (J) into the top of the cap until it is seated flush. This procedure presses the stud end of the Brass Clip Bushing (J) into the nipple of the twist mechanism (F), securing the pen top to the bottom. If your pen top has not been secured to the bottom by this process, place the stud of the Finial (K) through the Clip (G) and screw into the top of the Brass Clip Bushing (J). Do not completely tighten the finial, but leave approximately 1/16" of space between the top Tube #2 and Finial (K). Place the pen in a clamp or vise and press the Finial (K) flush with the top of Tube #2. This action will further seat the Brass Clip Bushing (J) and engage the nipple of the twist mechanism.

Pen Operation:

1. Turn the top of the pen clockwise or counter clockwise while holding the bottom and the ink refill will rotate out and lock. This is the double twist action of the Parker StylePen.

2. To remove the pen top for ink refill replacement, turn the top counter clockwise past the point where the ink refill is extended and screw the top off of the pen.

Additional Parts:
06S28 Replacement Tubes (5 pair) \$3.95

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