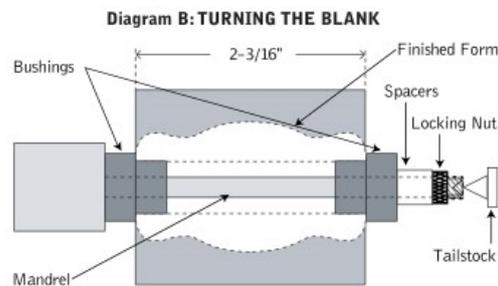
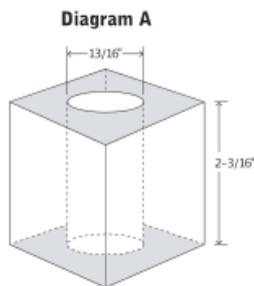


PEN KITS ASSEMBLY INSTRUCTIONS FOR MAGIC WAND KALEIDOSCOPE

Required Accessories

- 7mm pen mandrel
- 2-piece Bushing Set RZ-PK79#-BU
- Barrel Trimmer
- Live Tailstock Center



- Use a block of wood to cut a length of 2-3/16". It is important that the length of the blank be 2-3/16" in order for the mechanism to fit properly.
- Determine the center of the square and drill a 13/16" hole completely through. If the wood is to be left natural, you should drill through the end again.
- Use bushing set(RZ-PK79#-BU) to mount and turn the blank on your lathe. These kaleidoscope bushings are "step bushing" that slide onto 7mm pen making mandrel.

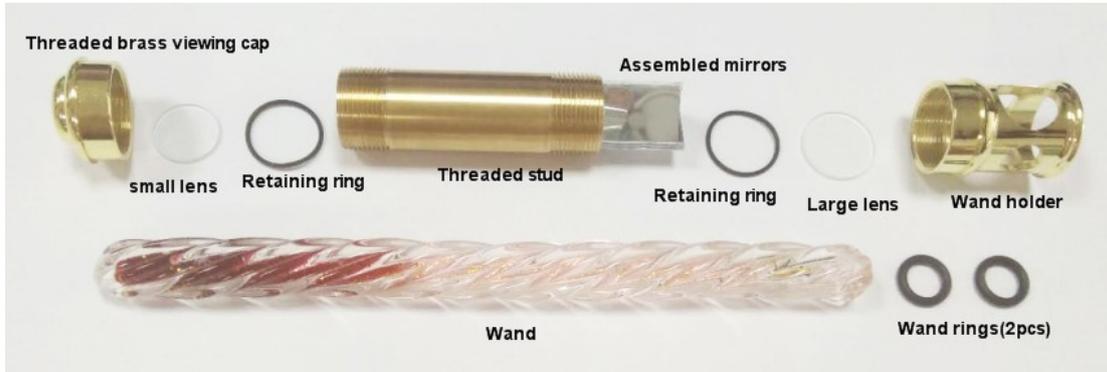
Assembly of Magic Wand Kaleidoscope Kits

Diagram C

PEN KITS ASSEMBLY INSTRUCTIONS FOR MAGIC WAND KALEIDOSCOPE

Assembly of Magic Wand Kaleidoscope Kits

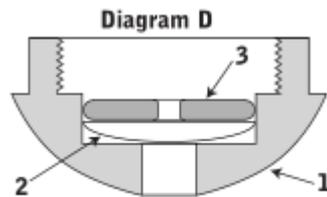
Diagram C



Arrange parts according to Diagram C.

- Insert the Large lens and Retaining ring into the threaded hole of the Wand holder.
- Thread the brass stud (with the Assembled mirrors inside) into the Wand holder making a tight fit against the Large lens.
- Slide this assembly into the wooden tube.
- Insert the Small lens and Retaining ring into the threaded hole of the Viewing cap.
- Thread on the Viewing cap assembly over the exposed thread on the opposite end, hand tight.
- Insert the Wand through the holes in the holder to the middle. Slide the Retaining rings one over each end of the Wand to secure it from sliding out.
- The Magic Wand Kaleidoscope is ready for viewing. For best results, aim towards a bright light source, and rotate while looking through the opening.

Installing the lens in the viewing cap



Viewing cap assembled with lens and retaining 'C' ring

PEN KITS ASSEMBLY INSTRUCTIONS FOR MAGIC WAND KALEIDOSCOPE

Position the viewing cap (#1) with the eyehole facing down. Drop the lens (#2) into the recess inside the cap with the convex side down, flat side up as shown. Place the lens retarding 'O' ring (#3) on top of the lens with the extending shoulder facing the lens as shown above.

Assembling and installing the mirror

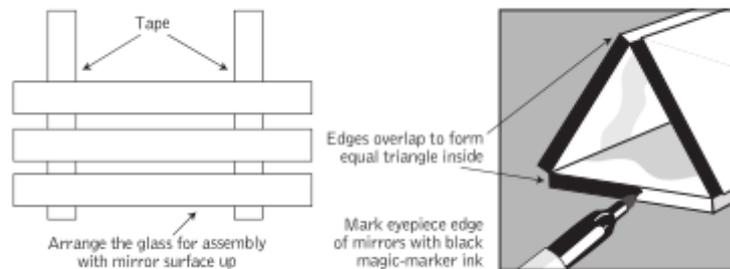


Diagram E

Note: If the mirror is already assembled, skip this step.

- Lay down two pieces of tape about 1-1/2 " long, sticky side up (The front surface side of the mirror is covered with a protective plastic film). Remove the film and lay down the mirrors on the tape with the mirrored surface face up.
- Space the mirrors 3/32" apart. Keep the mirrors parallel and edges aligned. Clean the mirror surfaces if necessary (with a glass cleaner) to eliminate any dirt or smudges. Carefully fold the mirrors into a triangular tube with the mirrored sides facing inside. Wrap the tape securely around the mirror tube. The edges should meet as indicated in the figure above.
- Insert the triangular mirror tube into the threaded brass stud. The mirrors should fit snugly inside the tube. If the mirrors slide freely inside the tube, add tape around the mirrors until the mirror tube fits snugly.