

KALEIDOSCOPE NECKLACE KIT

Kit Features:

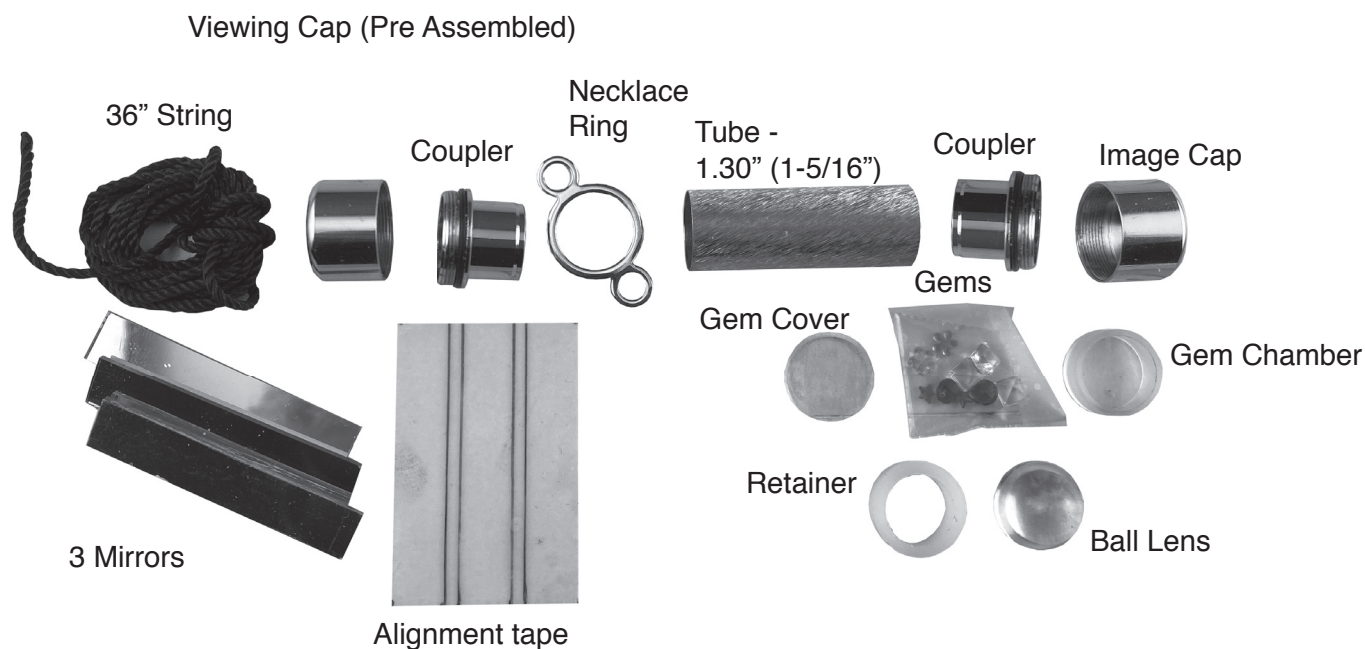
- Choice of two configurations
- Makes a stylish fashion accessory
- Easy to Turn with Straight Tubes
- Minimal Parts--easy to assemble
- Available in multiple finishes
- Overall Length:

Required Accessories:

- 7mm Pen Mandrel
- Drill Bit: #PK-125MMSG for plastic or #PKPLI-DB for wood
- Bushing Set(2pc): #KSNECBU
- Barrel Trimming set: PKTRIM7 with 12.5mm sleeve from #PKMAJRBTS or #PKTRIMSET.
- Live Tailstock or Mandrel Saver
- 2 part Epoxy or Thick CA (Cyanoacrylate) Glue
- Pen Blank Minimum Size: 3/4" x 3/4" x 1-3/8"L



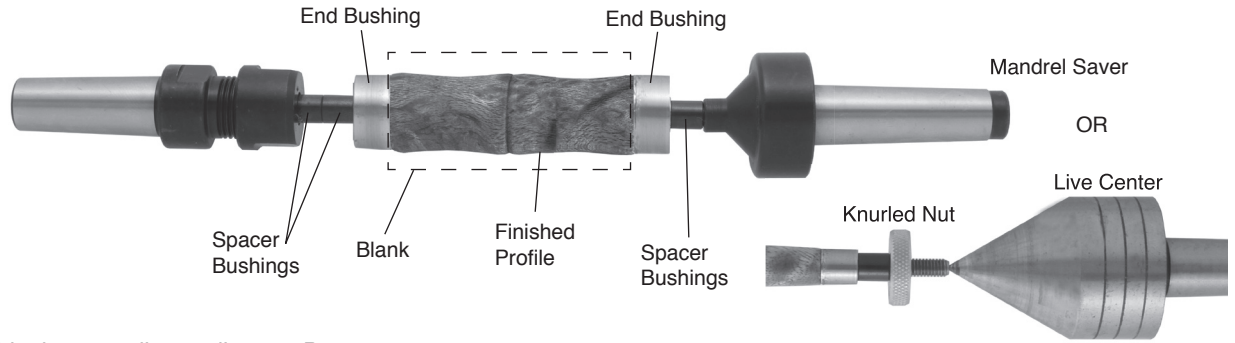
DIAGRAM A / PARTS LAYOUT



Preparing the Blank:

- Cut blank to the length of the tube, adding 1/16" for squaring off.
- Drill 12.5mm hole lengthwise through the blank.
- Spread glue over tube, insert the tube into 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 blanks, making sure the trimmed ends are 90° to the tube. Use a 7mm barrel trimmer with 12.5mm sleeve, or a pen blank squaring jig with a 12.5mm sleeve on a disc sander. Take the excess material down flush to the ends of the tubes. Do not trim past the end of the tube since this may interfere with the operation of the mechanism and assembly. Use a barrel trimmer to clean the inside of the tube.

DIAGRAM B / TURNING THE BLANKS



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 Tailstock.
- Hand tighten the quill adjustment on the tailstock to steady the mandrel. Do not over tighten, it could damage the mandrel shaft.
- When using Mandrel Saver, there is no need for extra spacer bushings or the knurled nut. Slide tailstock directly against bushings and tighten until blank and bushings are secure.
- 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 sandpaper grits.
- Finish the barrel using your choice of polish. Allow Sufficient time for the polish to cure—refer to polish instructions.

Assembly

- Press one Coupler into either end of finished Barrel.
- Slide remaining Coupler into Necklace Ring.
- Press remaining Coupler into Barrel through Necklace Ring. Avoid over-pressing -Necklace Ring should be able to spin.
- Thread Viewing Cap onto the Coupler with Necklace Ring.
- Unwrap the mirrors and carefully remove the back from the Alignment Tape.
- Lay the Alignment tape down with sticky side facing up.
- Carefully place each mirror on Tape. The lines mark the spacing between mirrors (See Diagram)
- Once the mirrors are on the tape, you should be able to fold the mirrors (with tape on the outside) to form a triangular prism.
- Slide mirrors into the open coupler.
- Assemble Image Cap (See Below)
- Tie string into Necklace Ring with preferred knot (slip knot or similar loop knot recommended)

Image Cap Assembly (configuration can be switched as desired)

Kaleidoscope (With Gems)

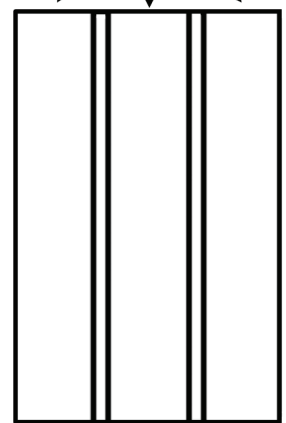
- Insert Gem Chamber, closed side first, into Image Cap
- Pour Gems into Gem Chamber
- Remove film from both sides of Gem Cover and place over Gems
- Without turning Image Cap over, thread open Coupler into Image Cap.

Teleidoscope (No Gems)

- Insert Ball Lens into Image Cap, rounded side first.
- Insert Retainer, narrow side first, into Image Cap
- Use Rod or Dowel to push Retainer fully into Image Cap.
- Thread Image Cap onto open Coupler.

Using Alignment Tape

Place Mirrors in these spaces



These spaces allow folding

Diagram C / Bushings #KSNECBU

