



The piston filler set includes: transparent, mandarin yellow, ivory darkness, lapis inferno, panther, jade, bumblebee, December 25<sup>th</sup>, cardinal darkness, poltergeist pumpkin, and Arizona (other colors will be available as time passes). They are a classic 1960s design made from a celluloid/organic derivative developed by a company in Rochester, New York – that has several trade names (including some high priced variants, such as “vegetal resin”). The piston seal is also made of the same material used in most high end piston filling pens of today (a type of nylon). The nib is stainless steel tipped with a hard platinum group metal alloy. The flex feed is for ventless nibs only (it adapts to many classic dip pen nibs as well!) and functions best when at full flex if one adjusts the speed of the written line to enable the automatic enlargement of the air intake which will cause additional ink flow to the page (if you write too rapidly with full flex the nib/feed can’t deliver the additional ink needed fast enough, so adjust your writing speed accordingly). Expelling ink into the feed until all fins are full can assist the widest artistic strokes (2mm). This nib alloy/feed combination enables classic Victorian style writing in a modern pen at a reasonable cost (no need to sell the first born anymore!).

To fill: dip the nib and feed into the ink up to the thin section band and rotate the end of the barrel until the piston is seen in the windowed chamber or resistance is felt – then turn the other way until the barrel end is closed. Remove from the ink and clean off the excess ink with a cloth or paper towel. The pen is now full and ready to write. Rinse out with water (and sometimes a solution of water and ammonia) as may be needed, particularly if changing ink colors. Now and then clear moisture from the cap with a q-tip if needed due to condensation in certain humid conditions and conversely add a bit of wet sponge into the inside of the cap to keep the tip wet if you are in the dry desert/low humidity conditions. Wet writing with a wide variety of inks will be maintained with nib tines that are far enough apart so that one can see a ray of light pass between them when the pen is clean and dry (flex nibs are different: dry light touch, wet with pressure). Smooth writing is dependant upon each nib tine being even with the other (so if your pen drops nib first upon a hard floor or surface, you can align the nib tines to be even again with tweezers – and often thus avoid the cost of a nib replacement or sending the pen to a repair shop).

Also, unlike many other modern pens that cost as much as \$55 US for the replacement of a piston seal – this pen was designed to make the fountain pen far more competitive. The nib/feed are friction fit and can be removed with a firm grip and steady forward pull using a rubber grip (use a slice of tire inner tube– one customer even reported using a wide rubber band at his office desk). Once removed, you can replace the nib with a similar sized ventless nib of your preference – re-align and reset firmly back into the section, OR you can replace the piston seal as follows. To do so simply obstruct the forward movement of the piston (a slender & blunt pointed object put down the barrel will function just fine) and unscrew the rear of the barrel until the unit comes out (it was designed as a clutchless mechanism for ease of future maintenance). Once removed – cut the nylon piston at its base and pry off (it is easy to do – a box cutter will work fine), clean any aberrations on the piston mount with the blade until it is round (so the gasket can seal upon it) and pop on one of our affordable (cents, not dollars!) gaskets. Add a small amount of pure silicone grease (sold in \$1 to \$2 tubs for faucet repair in the plumbing section of any hardware store – one purchase is generally enough to last a lifetime!) to the gasket and mechanism for smoother operation (use a toothpick or end of a paperclip)...screw the whole mechanism back into the end of the pen fully - and you have just completed the most practical piston filler pen restoration available today! You probably will not need to replace a piston seal for a long time, but I wanted you to know long before that point – that it is easy...and does not cost much! The seals are sold for well less than a dollar by your Noodler's dealer. If additional information is needed, please contact your dealer – but this should cover most circumstances you might encounter.