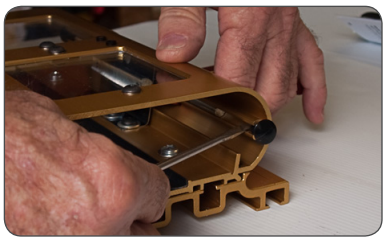
Threaded Segment Replacement Instruction (Base)

Tools required:

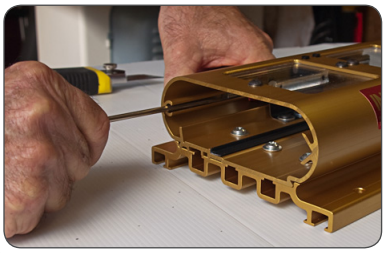
Leverage Tool w/nylon collar (supplied), 1/8" hex key, scratch awl

NOTE: If you are converting an Imperial LS Positioner to a Metric model, replace the Imperial Lead Screw Assembly in your LS Positioner's Carriage with the Metric Lead Screw Assembly provided BEFORE continuing with these instructions.

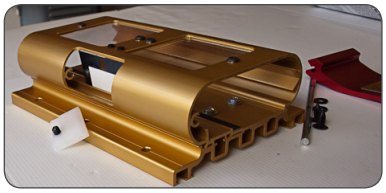
1. Remove the black nylon arrow clips from each end of the Base. (Replacements are provided so don't worry if they break.)



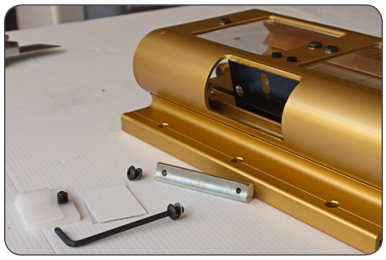
2. Use a scratch awl or small screwdriver to push out the pivot rod that secures the red clamp handle. As the rod is removed keep an eye on the small black washers on either side of the red clamp handle. These will need to be replaced later.



3. Remove the 1/8" thick UHMW clamp bearing pad and the small collection of thin plastic shims between the pad and the metal spring engager. Retain all for later re-assembly.



4. Using a 1/8" hex key, unscrew the (2) button head fasteners located on either side of the clamp bearing pad and remove the existing Threaded Segment held by these fasteners.



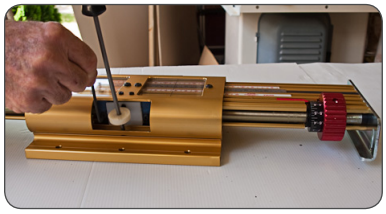
5. To gain better access for the Threaded Segment replacement, remove the (2) button head fasteners with washers that secure one of the acrylic view windows and set the window and fasteners aside.

6. Replace the Threaded Segment previously removed with the New Threaded Segment provided. **DO NOT TIGHTEN THE BUTTON HEAD FASTENERS AT THIS TIME.** They should remain slightly loose for the next step.

7. Slide your LS Positioner's Carriage into the Base. (NOTE: If you are converting an Imperial LS Positioner to a Metric model, make sure you have already converted your LS Carriage to the Metric Lead Screw Assembly before proceeding.) Position the Carriage so that the Base is approximately centered on the Carriage length.

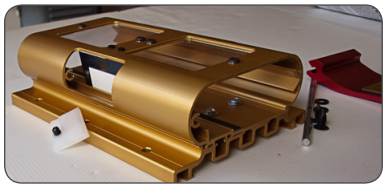
8. Insert the end of the provided Leverage Tool into the small hole located on the curved side of the LS Base near the Metal Spring Engager.

9. Push the Leverage Tool handle so that the nylon collar bears against the Metal Spring Engager. Push and release the tool a few times to "seat" the Threaded Segment properly with the Lead Screw on the LS Carriage. Finally, apply continuous pressure to the Leverage Tool as you tighten the (2) button head fasteners to secure the Threaded Segment to the Metal Spring Engager.

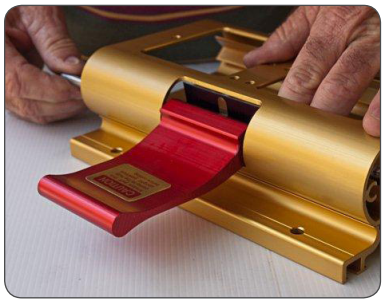


10. Remove the Leverage Tool and slide the LS Carriage from side to side within the Base to ensure that the threads between the Threaded Segment and the Lead Screw do not "grind" against one another. If the threads make contact during the slide, you must adjust the relative position of the Metal Spring Engager to move the Threaded Segment away from the Lead Screw as described in Steps 15-18 below. If the threads do not grind against one another continue with Step 11 below.

11. Replace the thin plastic shims and 1/8" clamping pad removed in Step 4. The thin plastic shims will slide between the Metal Spring Engager and the protruding "fin" on the LS Base extrusion. (Fig 35 on Pg 15 of your LS Positioner's Owner's Manual offers a good illustration of the shim placement.) The set screw on the 1/8" UHMW clamp bearing pad should nest into the slotted hole on the Metal Spring Engager. Make sure to orient the 1/8" clamp bearing pad so that the surface with the thick tape adhered to it faces the Metal Spring Engager.



Threaded Segment Replacement Instruction (Base)



12. Using the 7" long steel pivot rod, replace the red clamp handle. Be sure to place one of the black nylon washers removed in Step 3 onto the pivot rod on either side of the clamp handle. (You can use a small amount of grease as an aid to hold the washer in place.) Hold the clamp handle horozontally pressing it against the UHMW clamp bearing pad as you advance the pivot rod into the LS Base extrusion, passing through the first black nylon washer followed by the clamp handle, the final black nylon washer and into the other end of the LS Base. Cap off each end of the LS Base extrusion with the provided black nylon arrow clips. Check that the operation of the red clamping handle is correct, horizontal for free sliding movement, midway for micro adjustment and vertical for full lock. Be sure to test the feel of the unit at each of these points.

Horizontal = Free sliding, no grinding.

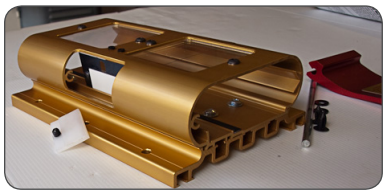
Midway = Able to turn Micro Adjust Knob.

Vertical = Fully locked NO Movement.

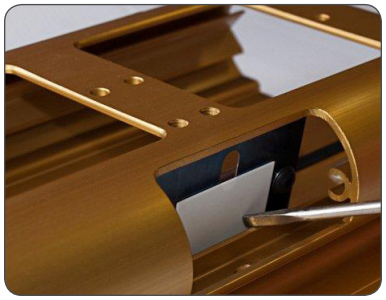
If clamping pressure is too tight or too loose, you'll find complete instructions on fine tuning your clamping pressure using the provided shims in your LS Positioner's Owner's manual on beginning at the bottom of Page 14.

13. Carefully slide the LS Carriage out of the Base and re-attach the view window or windows previously removed. If both view windows were removed, place the one with the hairline in the opening at the forward end of the base. (Make sure that the printed hairline is face down.)

If the threads between the Lead Screw in the LS Carriage and the Threaded Segment in the LS Base make contact or grind against each other when sliding the Carriage from position to position, it will be necessary to adjust the Metal Spring Engager to move the Threaded Segment away from the Lead Screw. Follow Steps 15-18 below to adjust the Metal Spring Engager's position.

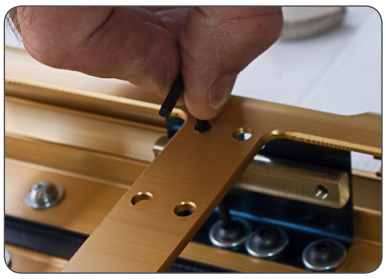


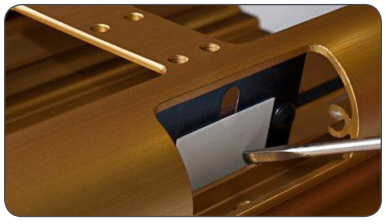
14. Remove the Red clamp handle along with the 1/8" UHMW clamp bearing pad and plastic shims as described in Steps 1-4 above then carefully slide the LS Carriage out of the Base.

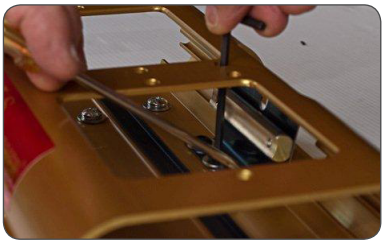


15. Use a set of Feeler Gauges (or multiple pieces of the provided plastic shims, .020", .010" & .005" thick) to gauge the gap between the Metal Spring Engager and the vertical "fin" in the LS Base extrusion. You will need to DECREASE this gap in the adjustment process so it is important to know what the gap is to begin with.

16. Remove both Acrylic view windows from the LS Base as well as the (2) black nylon slotted head set screws located between the windows to gain access to the button head fasteners that secure the Metal Spring Engager to the LS Base extrusion.







17. Using a long 1/8" hex key, loosen all (4) of the button head screws. Use your set of feeler gauges or the provided plastic shims as an aid in gauging the distance as you move the Metal Spring Engager assembly closer to the vertical "fin" on the LS Base extrusion. Just a few thousandths should be all that is required to create the necessary clearance (one of the thinnest shims). Tighten all (4) button head fasteners. Carefully slide the LS Carriage back into the Base to check for clearance between the Lead Screw and the Threaded Segment and fine tune as necessary. Once clearance is achieved, thread the black nylon slotted head set screws into the holes located between the view window openings on the LS Base. Screw the set screws down until just before they make contact with the top of the LS Carriage. Now continue re-assembly beginning with Step 11.

Photography: Grahame Waterson
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