

Sure-Lok User Operating Instructions

Please read thoroughly and understand before operating VADA Sure-Lok

Important Features & Warnings:

Sure-Lok is an accessory that will enhance the use of *any* cable-operated device.
Sure-Lok is **ONLY MANUALLY** operated and works with standard 1/16 "d. cable.
Sure-Lok can be operated through a shirt or jacket.
Sure-Lok reliably grasps onto the cable preventing it from moving towards the device.
Sure-Lok is very useful for carrying and holding objects for longer periods of time.
Sure-Lok is not intended for heavy duty weight lifting or weight training.
Sure-Lok should **NEVER** be used on a steering wheel or handle bar for vehicle control.

Operation General

Release (Un-Lock) **ALWAYS** pull on (tension) cable before rotating lever towards post.

Activate (Lock) Rotate the lever away from post

Voluntary Closing Device Operation

GRIP Prehensors, ADEPT Prehensors, Lite-Touch Hands and equivalent

Two Lock Options:

1. Grip object then rotate lever into lock position or
2. Rotate lever into lock position with fingers full open then close down on object sizing it for holding/carrying.

Un-Lock:

Tension (**pull on**) cable then rotate lever towards post.

Voluntary Opening Device Operation

Hosmer® Split Hooks, V.O. Hands & equivalent

Lock:

Pull open hook fingers and relax onto object (sizing it). Rotate lever away from post.

Un-Lock:

Pull on cable and rotate lever towards post.

REMEMBER!

Always pull on the cable when releasing (Un-Locking) Sure-Lok

TRS Inc. / Resource

Questions/Answers/Problems/Trouble Shooting

1.800.279.1865 (Mountain Time)

VADA Sure-Lok Installation

1. General: What you get.

Top to Bottom: Left to Right:

Nylon Cover Base, Lever (low profile), Lever(tall profile) Lever Fastener

Right Cover, Left Cover

Stainless structural Base, Cam, 5 Leaf Springs

Two Base Mounting fasteners

(Not Shown) Cable Housing, 1/16" D. Std. Cable, Cable Liner, 4 TRS Cable Housing Ferrules

Existing Prosthesis (Retro-fit)

2. Mark optimal cable centerline on prosthesis.
3. Remove Cable and Cable Housing Retainer.
Clean prosthesis surface. Fill old holes.
4. Position Stainless Structural Base over centerline at location of old cable housing retainer.

New Prosthesis Installation

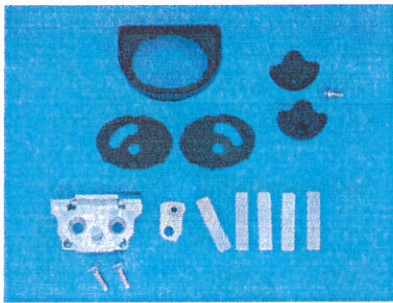
2. Determine optimal Sure-Lok position and mark cable centerline. *Normally where Cable housing retainer would be positioned but consider location and depth of internal socket so that no drilling will penetrate this area.*

5. Attach template to prosthesis using spray mount type adhesive. Make sure to align centerline on template with centerline previously marked on the prosthesis.
- 6.-8. Tape a piece of 2 inch x 3 inch (approx.) 120-180 grit sandpaper to prosthesis over template. Using prosthesis with sandpaper as a sanding form "sand" the concave surface of the nylon Cover Base until it conforms to the curvature of the prosthesis but try not to reduce the thickness of the Cover Base at the apex of the contour. This fitting will ensure that the Cover Base optimally fits and completely covers the stainless Structural Base.
9. Drill 5/64 inch diameter pilot holes at A, B & C. *Be careful not to drill too deep and penetrate into socket area.*
10. Enlarge *ONLY* hole C to 1/4 inch diameter to accept "boss" on bottom of SS Structural Base. Drill this hole approx. 5/32 – 1/4 inch deep through prosthesis's laminate shell.
- 11.-12. Position SS Structural Base over the template. "Boss" should drop into hole C and all the four small "feet" on the bottom should touch the prosthesis's surface and match up with the hole marks on the template. The Structural Base should "nest" onto the prosthesis. If the Structural Base is not accurately fitting onto the prosthesis surface go to Step 13. Otherwise go to Step 14.
13. Create small "drill point" holes using 5/64" drill bit at holes 1, 2, 3 & 4. Re-fit Structural Base. Small "feet" should drop into these drill points. Increase depth of drill holes until the center bottom of the Structural Base contacts the prosthesis.
14. Remove Template. Using 2 - #4 x 1/4 inch long fasteners (supplied) attach the stainless Structural Base to the prosthesis. Do not over tighten and strip out the holes. A small amount of "Barge®" or similar rubber cement may be used under base for additional bonding if desired.
- 15.-16. Press nylon Cover Base (previously modified in Step 6-8) over Structural Base to evaluate fit. The Cover Base should fit all around its perimeter intimately with the prosthesis. If not pry off the Base carefully along it's underside edges using a small screwdriver or equivalent and use a Dremel® tool with drum sander tool for final shaping of Cover Base. Set aside the Cover Base.
- 17.-19. Assemble the 5 leaf springs and grasp with pliers as shown in 18. Install springs as shown in 19. Note: Bent spring is closest to Cam.

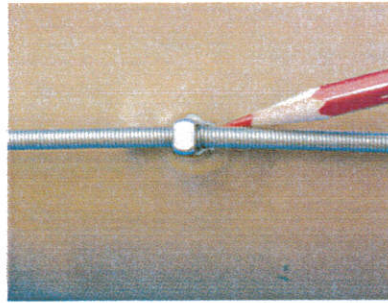
- 20.-23. Install Cam as illustrated. Squeeze springs gently against Structural Base wall to create clearance for Cam. *Note: Left hand Cam is illustrated.* Lubricate outer spring where Cam contacts spring and Cam Axle using very light machine oil. Press Cover Base back on over Structural Base assembly.
- 24.-28. Cut cable housing to fit into both ends (proximal and distal) of Sure-Lok. Proximal section should be long enough to reach cross bar strap and or triceps cuff retainer. Distal section should be long enough to protect cable on forearm of prosthesis yet not interfere with terminal device operation. Buff and polish off all four ends of the cable housing and press fit in a Cable Housing Ferrule to one end of each section of housing.) Next slide a section of cable housing liner into the cable housing until it stops at the Cable Housing Ferrule in the other end. Mark the liner with permanent marker then withdraw it approximately one inch. Cut it off cleanly with a sharp razor blade about one 1/4 – 1/3 of an inch shorter than mark, then slide it back into housing and press in second Cable Housing Ferrule trapping liner inside the cable housing. Repeat for other section of cable housing.
-
29. Thread cable housing sections with Cable Housing Ferrules and liner installed into each end of Structural Base through nylon Cover Base. Use "Blue" Loctite® or similar thread adhesive on outer ends of cable housing. Inspect inside the Sure-Lok to ensure that the Cam and Cable Housing Ferrules do not interfere when Cam cycles back and forth.
30. Install the 1/16 inch diameter cable (Provided). Feed cable in slowly and let it "snake" through all the fittings. Operate Cam manually to check "Locking and Unlocking action". Lock Cam onto cable and proceed to next step.
- 31.-34. Pick up appropriate Cover Base Cover (right or left) and inspect. Fit Cover onto Cover Base (Cam in "Lock" position) ensuring that tabs nest into place. Then "lever in the Cover using a small screwdriver. Cover should fit "flush" all around.
- 35.-36. Select Lever. Two lever models exist. The Standard is the "low profile". The Second is provided for custom modification and special circumstances. The Higher profile allows it to be drilled, ground away and customized to meet a particular patient's needs in grasping and operating the Lever. Slip Lever over threaded stud and use small fastener to hold it in place. Use a small dab of thread adhesive (Loctite® Blue - *removable type*) or equivalent on threads of fastener before installation.

Installation is now complete except for cutting cable to final length and attaching on appropriate cable end fittings (Not included) that are specific to terminal device and harness system.

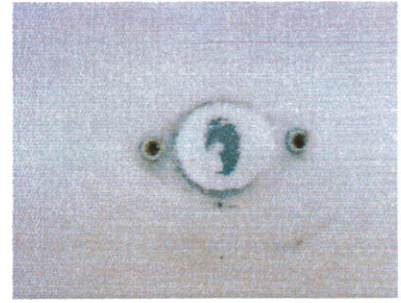
Templates



1.



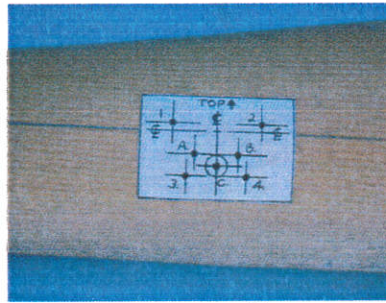
2.



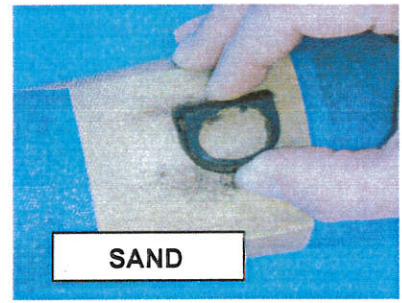
3.



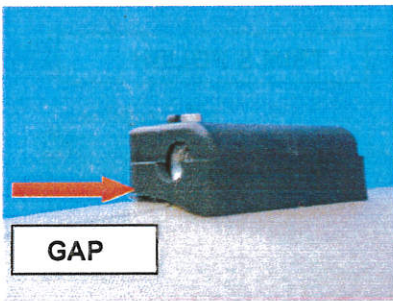
4.



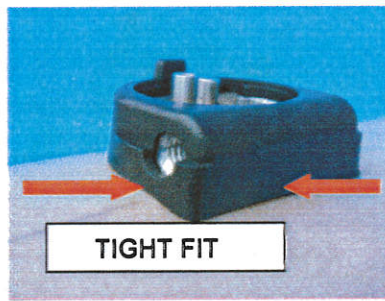
5.



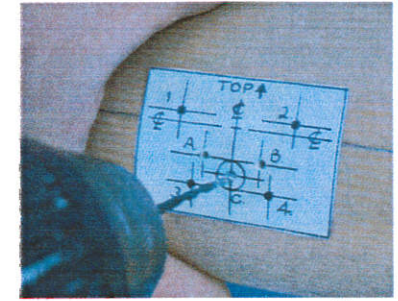
6.



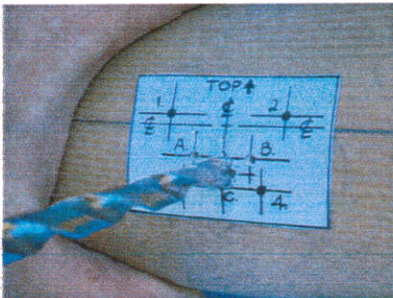
7.



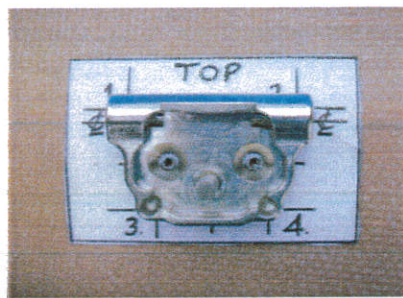
8.



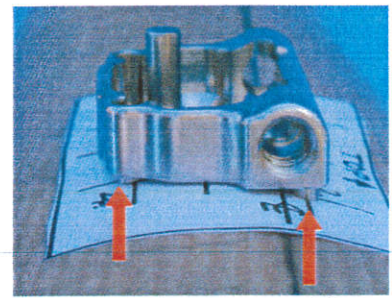
9.



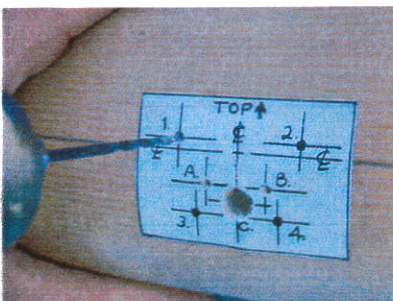
10.



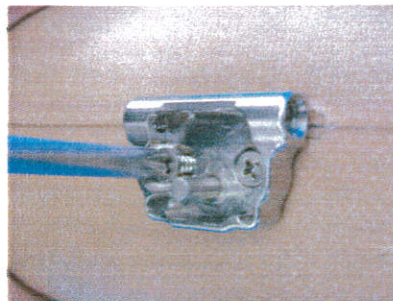
11.



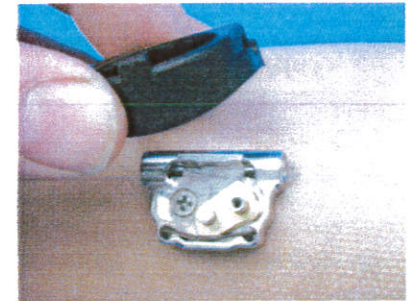
12.



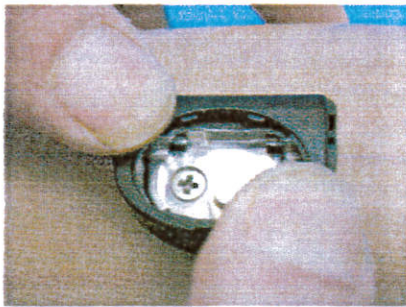
13.



14.



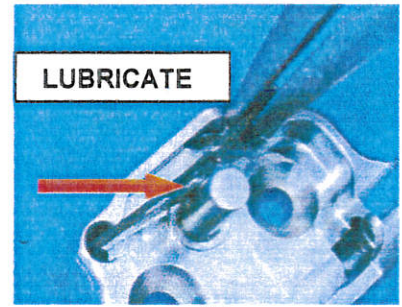
15.



16.



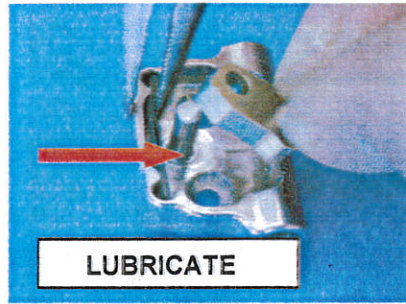
17.



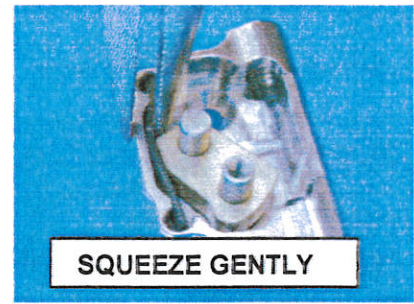
18.



19.



20.



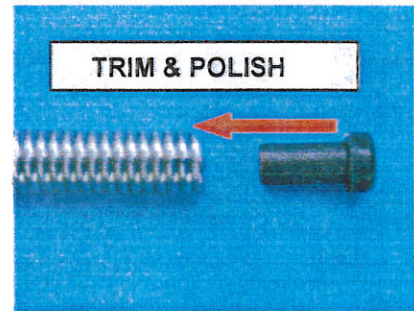
21.



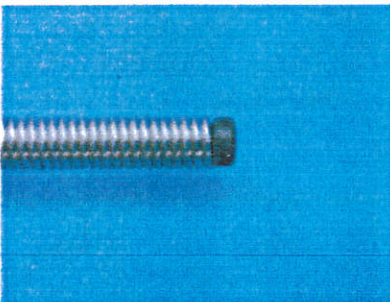
22.



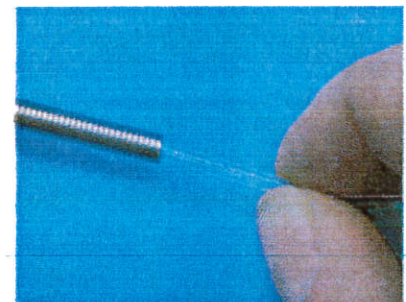
23.



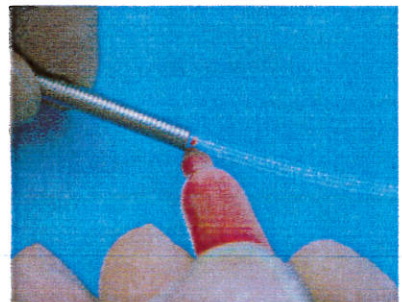
24.



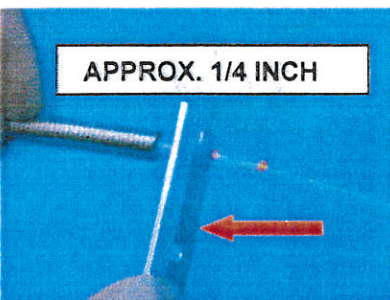
25.



26.



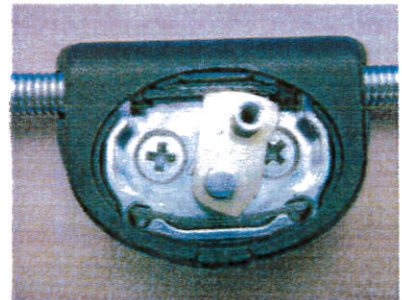
27.



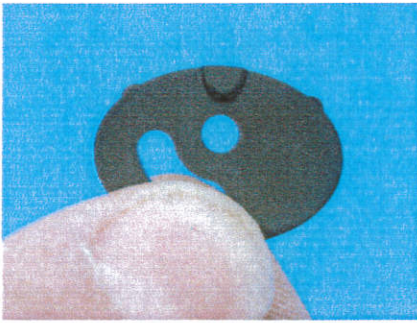
28.



29.



30.



31.



32.



33.



34.



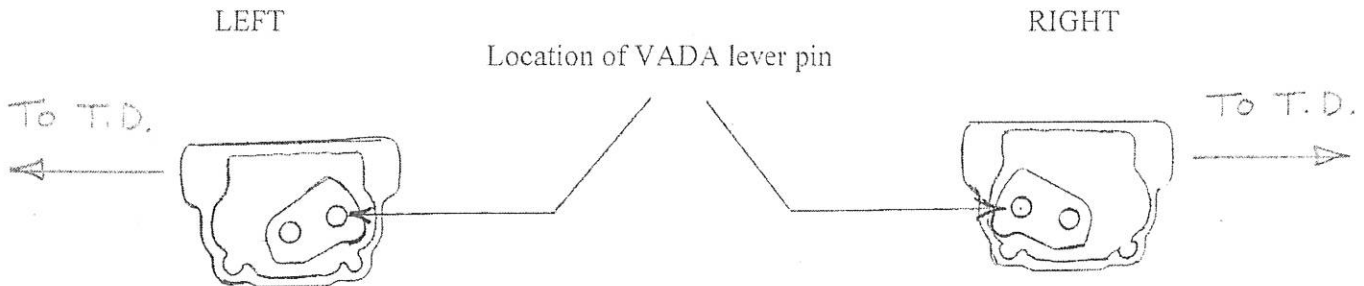
35.



36.

VADA CAM SETUP, LEFT AND RIGHT

TOP VIEW



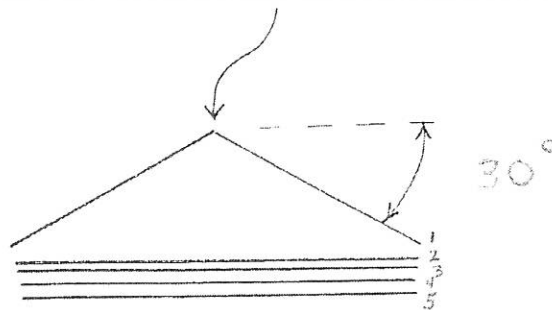
Both cams shown in "off-position"

Install a spare VADA lever fastener (p/n VADA06) into a VADA lever pin (VADA09).
Then press in the lever pin using the arbor press according to the drawings above.
Remove the fastener.

VADA SPRING SET UP

This edge against the cam

30 degree bend (approx)
Mark middle of spring then
secure one half in vice, bend
by hand.



TEMPLATE

TRS VADA SURE-LOK (SURFACE MOUNT)

When printing this template check to make sure to check the dimensions of the copy. You may have to adjust the print size to get the proper dimensions.

