

# BUCKINGHAM MFG

## 5004BKIT

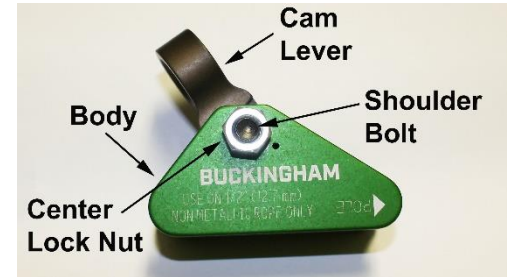
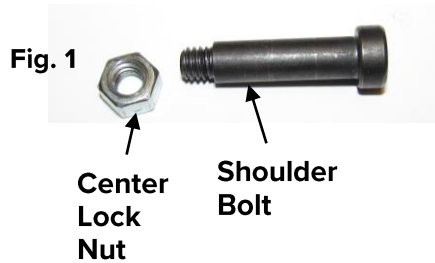
### Cam Lever Replacement Bolt and Center Lock Nut for 5004B LAD

Warning: Please consult with your physician prior to using this product. Do not use this product under the influence of drugs or alcohol.

PN 5004BKIT (Fig. 1) is a replacement shoulder bolt and center lock nut kit designed as a field replacement for the 5004B LAD (Fully assembled LAD with shoulder bolt and center locking nut shown in Fig. 2 and Fully Assembled LAD with shoulder bolt, nyloc nut and split ring shown in Fig. 3):

#### Parts Included:

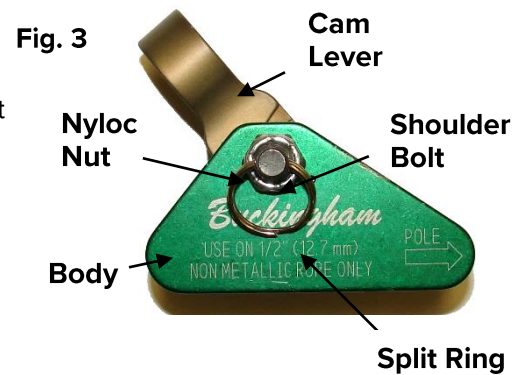
- One 3/8" x 1 3/4" Shoulder Bolt
- One 5/16" -18 Center Lock Nut
- One Single Use Tube of Loctite® 242
- Product instructions



#### Tools required:

- One 1/2" wrench (Box end, adjustable, etc.)
- One 3/16" Allen wrench
- Center punch and Hammer

**Note:** Before proceeding with this component replacement, inspection of the product by at least the user must be completed to ensure it is in a condition acceptable for continued use. If any evidence of wear, deterioration or impact loading is observed, immediately cease use, destroy the product and replace it with new equipment. Should any unusual condition be observed, or you have reasonable doubt about a particular condition, remove the equipment from service and notify your supervisor, safety director or contact Buckingham Mfg. at 1-800-937-2825 for clarification.

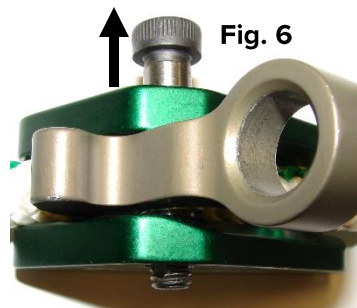


#### Instructions:

##### A. Replacing the Cam Lever Attachment Hardware

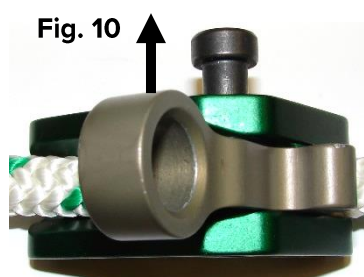
###### a. 5004B with Shoulder Bolt, Nyloc Nut and Split Ring Disassembly (Fig. 3)

1. Remove split ring from shoulder bolt (Fig. 4)
2. Remove nyloc nut from shoulder bolt using a 3/16" Allen wrench and a 1/2" wrench (Fig. 5)
3. Remove the shoulder bolt from the cam and the body of the LAD, leaving the cam and spring in the body (Fig. 6 - 7). Discard used shoulder bolt, nyloc nut and split ring.
4. See 'c' for 5004B re-assembly with new 5004BKIT shoulder bolt and center lock nut.



###### b. 5004B with Shoulder Bolt and Center Lock Nut Disassembly (Fig. 8)

1. Remove the center lock nut from the shoulder bolt using a 3/16" Allen wrench and a 1/2" wrench (Fig. 9)
2. Remove the shoulder bolt from the cam and the body of the LAD, leaving the cam and spring in the body (Fig. 10 - 11). Discard used shoulder bolt and center lock nut.
3. See 'c' for 5004B re-assembly with new 5004BKIT shoulder bolt and center lock nut.

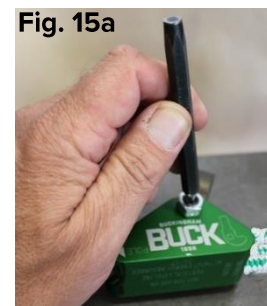
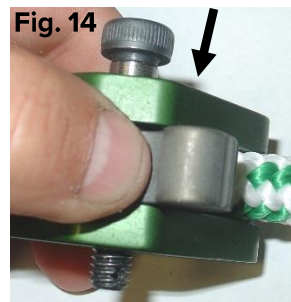
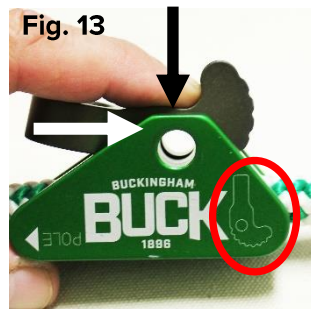


### c. 5004B Assembly with New 5004BKIT Shoulder Bolt and Center Lock Nut

1. Ensure the spring has maintained it's proper seat in the cam and the spring tab is inserted into the spring hole in the side of the body (Fig. 12).
2. The cam lever has maintained it's mounted position (i.e. is in the same direction as shown in the sketch on the side of the LAD (Fig. 13)). Align the holes of the cam lever and the body of the LAD by pushing the cam lever in the directions shown (Fig. 13).
3. From either side of the body, insert the shoulder bolt completely through the body and cam lever (Fig. 14).
4. Add a small amount of Loctite® 242 to the shoulder bolt threads and thread the center lock nut onto the shoulder bolt. Using a 3/16" Allen wrench and 1/2" wrench, tighten the center lock nut until it comes in contact with the shoulder of the bolt. Using a torque wrench, torque the nut to 75 in. lbs. max.

NOTE: The Supplied Center Lock Nut is a type of locknut designed to resist loosening under vibrations. As an added precautionary measure, Buckingham suggests that once the nut is properly tightened, the end of the shoulder bolt be peened Fig. 15a & 15b.

5. The fully assembled LAD should appear as shown in Fig. 16.
6. Check the LAD by pulling on the eye of the cam lever ensuring that the device grips the rope in the required direction and that the spring has adequate tension to ensure the cam lever returns to a position so that the cam teeth make contact with the rope.



### B. Replacing the Rope in a 5004B LAD

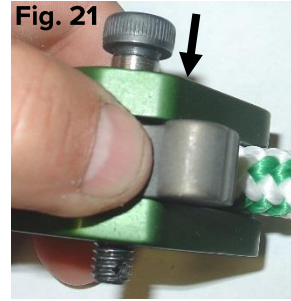
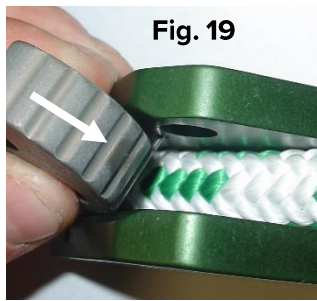
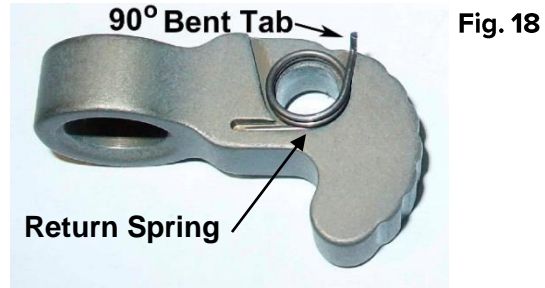
1. Remove the cam lever attachment hardware from the LAD and remove the cam lever from the LAD body. (See A (a) or A (b) as applicable)
2. Insert the new rope into the groove of the LAD body. The arrow shown on the device (Fig. 17) must point to the locking snap hook / carabiner end of the Adjustable Positioning Lanyard and if mounted around a pole, tree, or other structure, the arrow must point towards the same.
3. Place the spring into the cam spring slot. Ensure the straight leg of the spring is inserted in its designated slot. The 90° bent tab portion of the spring must point outward, away from the cam (Fig. 18).
4. Insert the cam lever with spring into the body of the LAD and on top of the rope. The spring 90° bent tab must be started into the small hole in the side of the LAD body first and then rotate the cam lever inward (Fig. 19).
5. Align the holes of the cam lever and the body of the LAD by pushing the cam lever in the directions shown (Fig. 20). The cam lever must be mounted in the same direction as shown in the sketch on the side of the LAD (Fig. 20).



6. From either side of the body, insert the shoulder bolt completely through the body and the cam lever (Fig. 21).
7. Add a small amount of Loctite® 242 to the shoulder bolt threads and thread the center lock nut onto the shoulder bolt. Using a 3/16" Allen wrench and 1/2" wrench, tighten the center lock nut until it comes in contact with the shoulder of the bolt. Finally using a torque wrench, torque the center lock nut to 75 in. lbs. max.

NOTE: The Supplied Center Lock Nut is a type of locknut designed to resist loosening under vibrations. As an added precautionary measure, Buckingham suggests that once the nut is properly tightened, the end of the shoulder bolt be peened Fig. 22a & 22b.

8. The fully assembled LAD should appear as shown in Fig. 23.
9. Check by pulling on the eye of the cam lever that the device grips the rope in the required direction and that the spring has adequate tension to ensure the cam lever returns to a position so that the cam teeth make contact with the rope.



Assembled LAD:

Be sure to perform a trial test while standing on the ground to ensure the LAD properly grips rope / locks prior to climbing.

Warnings:

This device is not to be used on a vertical lifeline without the use of a properly rigged Energy Absorber. This device has been designed and is intended to be used on 1/2" diameter and rope types denoted below only (see note below).

This device is not to be used on wire rope or steel cable.

NOTES: The Buckingham LAD has been tested and approved for use as a Length Adjusting Device used in conjunction with an Adjustable Positioning Lanyard on only the following types of ropes:

- 1/2" Blue Streak 16 strand rope
- 1/2" XTC 16 strand rope
- 1/2" Kernmantle rope
- 1/2" High Vee rope

Fig. 22b



Fig. 23



## STATEMENT of OBSOLESCENCE:

Precise “useful life expectancy” or “shelf life” for this product is not specified, as the degree of use, conditions of use, and the degree of care and storage determines useful life. All users maintain responsibility to select proper equipment for the job, be properly trained in its use, and ensure all personnel support equipment passes inspection before each use. Upon evidence of defects, damage or deterioration, all equipment shall be removed from service immediately and tagged or marked as unusable or destroyed. Additionally, all equipment shall be inspected on a regular basis not to exceed one year by a Competent Person, as defined by OSHA/ANSI, to verify that the equipment is safe for use. In the event of any question or concern regarding the condition of such equipment, users shall remove the equipment from service for further inspection. All users must comply with OSHA/ANSI/ASTM standards prior to and in using such equipment. For more information regarding safe and appropriate use of equipment, please contact Buckingham Manufacturing at 1-800-937-2825.

## INTERNATIONAL USERS:

Notwithstanding the above, please know that certain international jurisdictions require manufacturers of equipment to provide customers with a maximum useful lifespan (sometimes referred to as a “Statement of Obsolescence”). To the extent required, Buckingham personal protective equipment manufactured from synthetic fiber materials including but not limited to items such as webbing and/or rope are subject to a maximum useful lifespan of ten (10) years from the date of manufacture. As stated above proper usage, storage, maintenance, and care impacts the useful lifespan of equipment. Extreme circumstances may require that product must be retired after only one use. This statement is made in conformance and compliance with BS EN 365:2004. International users must ensure that product inspections are completed by Competent Persons as defined by international standards including but not limited to British Standard (“BS”). If equipment fails any inspections, it must be immediately withdrawn from service and destroyed. For more information regarding safe and appropriate use of equipment, please contact Buckingham Manufacturing at 1-800-937-2825.

## OUR GUARANTEE:

We guarantee the equipment we manufacture to be free from defects in material and workmanship. We will repair any equipment deemed to be defective which is returned to us by the original purchaser. However, this guarantee is void if any product is changed or altered in any way, or if the product is used in a manner other than for which it is intended. This express guarantee supersedes all other expressed or implied guarantees, obligations or liabilities. THERE ARE NO IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE AND AS SUCH, ALL IMPLIED WARRANTIES ARE SPECIFICALLY DISCLAIMED.

## LIMITATION ON LIABILITY:

IN NO EVENT WILL BUCKINGHAM OR BUYER BE LIABLE TO THE OTHER FOR LOST REVENUES, LOST PROFITS OR ANY OTHER INDIRECT, CONSEQUENTIAL, SPECIAL OR PUNITIVE LOSSES OR DAMAGES, HOWEVER CAUSED, WHETHER IN ACTION FOR BREACH OF CONTRACT, STRICT LIABILITY, TORT, OR OTHERWISE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH LOSSES OR DAMAGES. IN NO EVENT WILL BUCKINGHAM’S LIABILITY EXCEED THE TOTAL AMOUNT PAID BY BUYER TO BUCKINGHAM FOR THE PRODUCT OR EQUIPMENT GIVING RISE TO SUCH CLAIM(S).

PLEASE SEE OTHER TERMS AND CONDITIONS RELATING TO THIS PRODUCT AT <https://buckinghammfg.com/terms-conditions/>

## REGISTRATION:

Before use of the product, ensure to register and confirm the product at [www.buckinghammfg.com/register](http://www.buckinghammfg.com/register).

## **BUCKINGHAM MFG. CO., INC.**

BINGHAMTON, NY

1-800-937-2825

[www.buckinghammfg.com](http://www.buckinghammfg.com)

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