



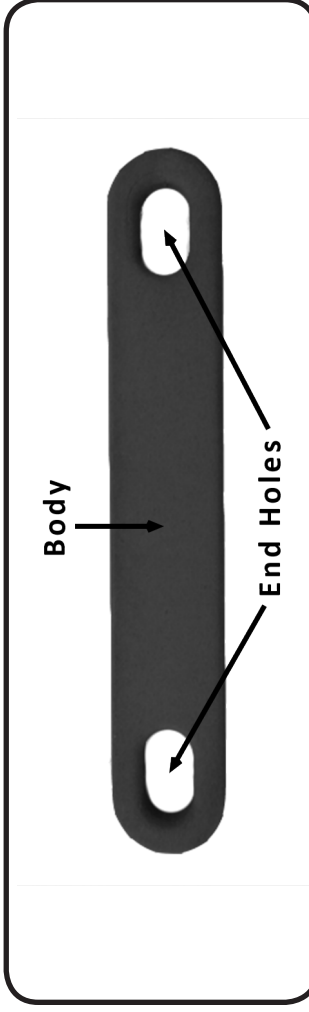
# SMOOTH OPERATOR

Retrievable Anchor System for Canyoneering



Instructions

•Made in USA •Rope Diameter: 6mm - 11mm static  
•DIM: 7.75 x 1.25 x 0.375 in. / 196.9 x 31.75 x 9.5 mm •Weight: 1.9 oz / 56g •Polycarbonate



The distributor-wholesaler-retailer-reseller is responsible for providing these instructions to the customer. Visit [www.BG-Gear.com](http://www.BG-Gear.com) for downloadable versions of these instructions and more information.

© 2014 BG-Gear Last Updated – 04-05-2020

## LIFE SPAN

Retire, destroy and replace your Smooth Operator every 3 years.

## GUARANTEE

This product is guaranteed free of all material and manufacturing defects for 2 years. Exclusions: normal wear and tear, oxidation, modifications, incorrect storage, incorrect usage, poor maintenance, negligence, misuse of this product, or using the product for any purpose other than what it was designed for.

## MODIFICATIONS

Do not modify any BG-Gear products. Product may only be repaired with replacement parts supplied by BG-Gear.

## COMPATIBILITY

Prior to use, verify this product has good working interaction with other elements of your system.

## GENERAL SAFETY

Always wear a helmet while using this product. Always ensure the rope reaches all the way to the bottom before rappelling. Inspect all equipment before each use and destroy any gear that is damaged, worn or unsafe for any reason. The Smooth Operator requires advanced skills and judgment requiring constant attention to detail with every use. As with any anchoring system, there is always potential for failure and human error which can result in injury or death to you and others. Before using the device in the field or at height, test the device in a safe and controlled environment. Always use the Smooth Operator with two or more people. With proper use the last person will take the highest risk. Avoid situations where the Smooth Operator can experience a shock load. Do not ascend on a rope anchored with a Smooth Operator. Do not use the product in flowing water or high winds. Never use a pull line that weighs more than 6 pounds. The Smooth Operator may not be the best choice for every situation. It is the user's responsibility to assess the situation and decide if the Smooth Operator is the best anchoring method. These instructions explain how to correctly use your equipment. Only certain techniques and uses are described. Any misuse of this equipment will increase the risk of accident, injury or death.

## CARE - CLEANING - STORAGE

Clean the product with fresh water only and dry thoroughly before storing. Store the product in a dry place away from exposure to UV, chemicals and extreme temperatures. Never expose the product to acetone.

## INSPECTION / RETIREMENT

**Before and After each use**, inspect the device for cracks, sharp edges, corrosion, deformation, wear, marks, other defects. **During each use**, monitor the condition of the device checking for cracks, sharp edges, corrosion, deformations, wear, marks and other defects. **During each use**, monitor connections to other equipment in the system. Make sure all pieces of equipment in the system are correctly positioned with respect to each other. Immediately retire any device that shows signs of cracking, sharp edges or shows signs of deformation. Some marking and wear as a result of using the device is normal. Scratches on the outer surface of the Smooth Operator are part of normal wear and tear and do not compromise the integrity of the device. While inspecting your Smooth Operator, look for signs of stress on the inside of the material. Internal signs of stress will show as white areas on the inside of the material (not the outer surface). Retire the Smooth Operator if there is severe chipping or deep gouges. Retire any device that does not pass inspection, has been misused, modified, damaged, exposed to harmful chemicals, becomes obsolete due to changes in legislation or standards, or becomes incompatible with other equipment in your system. If there are any doubts about the condition of this product, contact BG Gear.

**WARNING** - Failure to heed any of these warnings may result in severe injury or death. This BG-Gear product is for canyoneering use only and must be used in accordance with the product's instructions and used only for the specified purpose it was designed for. Instructions accompanying BG Gear products are not a substitute for qualified personal instruction. If you are not sure how to use this product properly, seek professional guidance. Any person using BG Gear products in any manner must be aware of and use all relevant safety procedures and become familiar with the capabilities and limitations of this product and associated equipment. Before using this product, the user must read and understand all instructions and warnings and is responsible for learning proper use and techniques associated with this product. Before using this product, you must be familiar with rescue techniques, so rescue may be immediately carried out in case of difficulties encountered while using this product; this implies adequate training in the necessary rescue techniques. Activities involving the use of this product are inherently dangerous and present the risk of injury or death to you and/or others and cannot be made safe. Any person using BG Gear products in any manner assumes all risk involved with the use of this product, and accepts full and complete responsibility for any and all damages, loss or injury of any kind to you and/or others, including death, which may result from the use or misuse of any BG-Gear products. BG Gear is not responsible for any direct, indirect or accidental consequences, damages, injury, or death resulting from use or misuse of this product. You are responsible for your own actions and decisions. Any litigation involving this product will be in Nevada State pursuant to Nevada law. The user is responsible for safe and proper use of this product.

## INSTRUCTIONS FOR USE

The Smooth Operator anchor system can be retrieved after rappelling, leaving nothing behind. Trees, rocks, arches, and other creative anchor options can be used. Some advantages of the Smooth Operator are: anchors can be set 20 or more feet back from the edge of a rappel, reduced webbing consumption and rap rings, rope groove reduction, adds options for ghosting a canyon (leaving no trace). Nomenclature (fig. 1a and fig. 1b).

### 1 - SELECT AN ANCHOR AND INSPECT PULL PATH

Pass rope around secure anchor then test to confirm rope pulls around anchor (fig.2). Avoid placing rope in a V-shaped notch where the rope can become stuck (fig. 3). If rope does not pull freely or if rope pull may damage trees or delicate sandstone arches, rig the Smooth Operator on a loop of webbing. Tie the loop of webbing around anchor then pass rappel rope through webbing (fig. 4). Inspect rope path and avoid vegetation, cracks, pinch points or other obstructions which may stick the rope, pull line or Smooth Operator during pull.

### 2 - CHOOSE GOOD LOCATION FOR STONE KNOT

The stone knot should be placed close to the anchor to reduce the amount of rope pulled around anchor after release. The top exiting strands should maintain an angle of less than 90 degrees (fig. 5). If a large diameter anchor creates angle greater than 90 degrees (fig. 6), re-position the stone knot farther from anchor to reduce angle. Avoid rigging next to solid features (fig. 7) to reduce the risk of the Smooth Operator banging into things.

### 3 - TIE A STONE KNOT AND INSERT THE SMOOTH OPERATOR

The Smooth Operator anchor system can be retrieved after rappelling, leaving nothing behind. Trees, rocks, arches, multiple stone knot variations exist. ALWAYS use the Overhand Stone Knot tied in the UP position (fig. 1c and fig. 11). The UP Position refers to which way the loop is folded (UP toward the anchor) while tying the knot. To tie the Overhand Stone Knot in the UP position, grab both ropes and make a loop (fig. 8). Fold the loop UP toward the anchor (fig. 09). Pull the upper strands through the loop and insert the Smooth Operator under the strands so the Smooth Operator is inside the stone knot (fig. 10). Cinch the stone knot tightly over the Smooth Operator leaving a tail of at least 18 inches (fig. 10). Caution: When cinching the knot, it is very important to keep the center strands of the stone knot as straight / flat as possible while allowing the outer strands to wrap around the Smooth Operator (fig. 11). After the Smooth Operator has been removed from a properly tied stone knot (fig. 12) the rope will easily straighten and completely dismantle the stone knot (fig. 13). An improperly tied stone knot where the center strands bend around the Smooth Operator (fig. 14) may form a bight after the Smooth Operator is removed (fig. 15). As the rope is pulled the bight may get caught in the knot (fig. 16) making it difficult or impossible to retrieve the rope.

### 4 - CONNECT SAFETY CARABINERS AND ATTACH PULL LINE

Tie a pull line to one end hole using bowline knot (fig. 18). Do not use a pull line weighing more than 8 pounds. Remember, wet and sandy rope weighs more and heavy winds can tug on pull lines. Ropes can be used for pull lines on short drops, while smaller pull lines like 1/8 inch Dyneema can be used on long drops. When using Dyneema always use a bowline knot with the addition of two back-up half hitches leaving at least 4 inches of tail.

### 5 - DEPLOY THE RAPPEL ROPE

After installing safety carabiners, throw rappel rope over the drop and ensure rappel rope reaches the bottom of rappel.

### 6 - ADD A BACKUP IF DESIRED

If the anchor strength is doubted, a backup anchor should be set up to test the main anchor. Tie an alpine butterfly knot in the rappel rope just below the stone knot. Tie a separate rope to a secondary secure anchor then clip the rope to the alpine butterfly loop (fig. 19). Adjust the length of the backup rope with as little slack as possible while not bearing any of the load of the rappel line. The last person to rappel will need to remove alpine butterfly knot and back-up rope before rappelling down.

### 7 - RAPPEL DOWN - (except the last two people)

As each person starts the rappel, those at the top can watch the system. If the Smooth Operator bangs into things, the Smooth Operator could be forced into an unsafe configuration. If the System twists a lot, the rappel rope or pull line may tangle during the pull down. If problems exist, rearrange the system to resolve the problem.

## 8 - LAST PERSON DOWN AND PULL LINE MANAGEMENT

The pull line should be thrown or carried down the rappel by the next-to-last person (fig. 20) before the last person rappels or the safety carabiners are removed. If the rappel is convoluted with obstacles, consider carrying the pull line down the rappel. Before rappelling, the last person must remove both safety carabiners, ensure the Smooth Operator is centered in the stone knot and ensure all ropes are unobstructed and tangle free (fig. 21). Caution: If the safety carabiners are not removed, the system will not release. While the last person is rappelling the pull line should not be moved or pulled on. Someone at the bottom of the rappel should carefully hold the pull line out of the way of the rappeller (fig. 22). Warning: The greatest risk of the Smooth Operator accidentally being pulled free is with the safety carabiners removed and the rope becomes un-weighted. Pay attention to ledges and horizontal sections where the rappel rope can become un-weighted and move smoothly minimizing rope movement at the top of the rappel.

## 9 - PULL DOWN THE SYSTEM

After everyone is down and the rappel rope is un-weighted (it is very difficult to release the system when there is weight on the rope), pull the pull line increasing the force until the Smooth Operator pops out of the stone knot. When the Smooth Operator pulls free don't look up - no one likes a Smooth Operator in the eye (fig. 23). Pull the rappel rope (fig. 24) which should pull very easily with only a few feet of rope to pull around the anchor.

## 10 - TYING THE STONE KNOT TWIST-FREE

It is good practice to tie the stone knot so it will be free of twists after the Smooth Operator has been removed. There are circumstances where a single twist can make it difficult or impossible to pull down the rope. The stone knot is counter intuitive in regards to rope twist. If you dress the stone knot well with no twists within the knot, which is traditionally taught with most knots, then you WILL have a 360 degree twist in the rope after the Smooth Operator has been removed and the stone knot releases. For information on how to tie the stone knot twist-free, refer to the Smooth Operator Extra Info page at BG-Gear.com

