



Manual for BC Roller



The following manual is to be used in combination with the illustrations in each section.

Only the techniques that are not crossed out or shown with a skull and cross-bones should be used. All techniques shown with the above illustrations are expressly forbidden and may result in severe injury or death.

Please regularly check for updates and new information on this product at our website: www.balancecommunity.com. Please do not hesitate to reach out with any questions or concerns.

Thank you for your purchase! We hope you enjoy your new BC Roller. We appreciate your trust and interest in Balance Community's products and hope you can get much use out of them.

Please take the time to go through this manual to familiarize yourself with this device. There are a number of nuances and specific use-cases that are important to know about before trusting your life to this device.

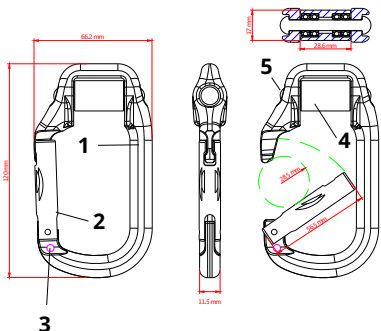
If you ever have any questions about your device and/or how to use it, please feel free to reach out to us at the contact information on the last page of this manual.

- The Balance Community Team

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1. Part Identification and Dimensions

- 1.) Body
- 2.) Gate
- 3.) Lanyard Hole (4mm)
- 4.) Roller
- 5.) Roller Axle



2. Specifications

Major Axis: **21.0 kN** (4,721 lbf)
 Working Load Limit (WLL): **4.0 kN** (900 lbf) *
 Minor Axis: **7.0 kN** (1,574 lbf)
 Gate Open: **6.0 kN** (1,350 lbf)
 Weight: **122 g** (4.30 oz.)

Body Material: **Aluminum 7075**
 Roller Material: **Aluminum 7075**
 Gate Material: **Aluminum 7075**
 Bearing Material: **Stainless Steel 440C**

* The working load limits are based on a 5:1 design/safety factor. You must decide if that is sufficient in your situation and circumstance.

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Warning

- Activities that involve the use of the BC Roller are inherently dangerous and carry a significant risk of injury or death that cannot be eliminated.
- It is the user's responsibility to obtain specific training and to use it safely. These instructions DO NOT tell you everything you need to know.
- Do not use unless you can and will understand and assume all risks and responsibilities for all damage/injury/death that may result from use of this equipment or the activities undertaken with it.
- Any device is subject to failure: carefully check before and after each use.
- You must always have a backup: never trust a life to a single tool.
- Everyone using this equipment must be given and thoroughly understand the instructions and refer to them before each use.
- You must have a rescue plan and the means to implement it. Inert suspension in a harness can quickly result in death!
- Do not use around electrical hazards, moving machinery or near sharp edges or abrasive surfaces.
- Balance Community, LLC is not responsible for any direct, indirect or accidental consequences or damage resulting from the use of our products
- Neither the manufacturer nor the vendor can be held liable for direct or indirect physical, property, consequential or collateral damage arising from the use of this device. **Use this device at your own risk!**

Adhere to the Working Load Limits (WLL)

Be aware that different configurations and uses of the BC Roller have different working load limits. Consult the specifications on the next page or diagrams on the device to learn what the working load limit is for your use-case.

DO NOT EXCEED THE WLL ON THE BC ROLLER

3. Guarantees and Warranties

Limited Warranty: for one year following purchase to the original buyer. We warrant that our products are free from defects in material and workmanship. Excluded from this warranty are normal wear and tear, modifications and changes, as well as damage caused by misuse.

A full device recall is only applicable to new and unused products.

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8. Intended Use

The BC Roller is a webbing roller carabiner and should only be used with energy absorbing systems (such as dynamic webbings, energy absorbers, etc...) and slack must be kept out of the system to prevent high impact falls. It is intended for use by medically fit, specifically trained and experienced users. The device is only suited for tensioning/detensioning slackline webbing and rolling along a highline.

The BC Roller may not be used as personal protective equipment (PPE), fall protection, means of climbing protection, or for mountain rescue - it is not certified for these uses.

The user is responsible for the surveillance of the operating and working load.

Please note: When combining this product with other components, the safety aspects of the Components may interfere with each other. It is up to you to determine if the combination of components is safe, according each components design and instructions.

5. Storage, Transport, Care, and Lifespan

Avoid contact with heat, abrasive and sharp objects, corrosive substances or solvents. Wash with clean water and if necessary, add a small amount of neutral soap to remove persistent dirt. To disinfect, use diluted ammonium salts according to the safety instructions provided. If the BC Roller is damp or wet, leave it out to dry in shade or away from direct heat sources.

If needed, lubricate any mobile parts of the BC Roller using only silicone based oil spray. Warning! An excessive amount of oil encourages dirt and dust to stick. Remove any excess oil using a cloth. Warning! Check that the lubrication does not compromise the interaction between the BC Roller and the other components of the system, such as your slackline webbing or anchor materials.

Moisture, ice, salt, sand, snow, chemicals and other factors can prevent proper operation or can greatly accelerate wear.

Check all parts for cracks, deformation, corrosion, wear, etc. Verify that the gate operates normally. Verify that the Roller and Body are free from burrs that could damage soft goods. Regularly inspect and monitor your system, confirming proper connections, equipment position, fully locked connectors, etc.

Repairs or Modifications to the BC Roller and it's various parts are not permitted and only allowed by the manufacturer or those authorized in writing by the manufacturer.

The lifespan of the BC Roller greatly depends on the usage. In extreme cases, the BC Roller can be retired after the first use. Monitor your device and pay close attention to how much use it has gotten.

Retire the BC Roller from service and destroy it if it is significantly loaded beyond the WLL. In any configuration, does not pass inspection or there is any doubt about its safety, is misused, altered, damaged, or exposed to harmful chemicals, or if the gate and/or roller do not operate normally. Consult the manufacturer if you have any doubts or concerns.

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6. Directional Loading Diagrams

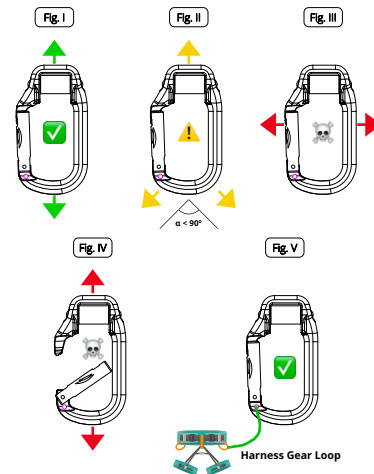


Figure I - The BC Roller offers the maximum strength when the gate is closed and the load is being applied along the major axis.

Figure II - The strength of the BC Roller will diminish greatly when being tri-loaded.

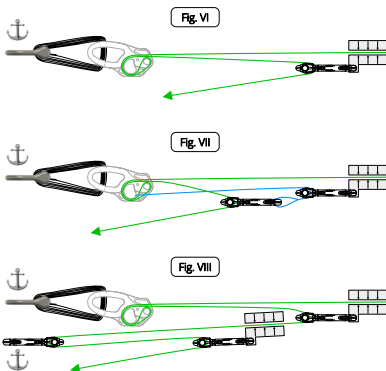
Figure III - The strength of the BC Roller will diminish further if loaded along the minor axis!

Figure IV - Furthermore, the strength will be diminished further if loaded while the gate is open. Ensure the gate is closed prior to loading.

Figure V - To ensure the BC Roller is not dropped, you can run a small cord from the Lanyard Hole to a gear loop on your harness. The cord must be smaller than 4mm. NOTE: This hole is not load-bearing. Applying load to the Lanyard Hole will result in premature failure of the BC Roller.

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7. Use as a Pulley System Component



The BC Roller, when combined with webbing grips, weblocks, and soft releases, can be used to tension a slackline in a number of configurations. Above we have 3 common configurations that are often used.

Figure VI - The standard 3:1 Buckingham system, which requires a single webbing grip, a weblock with soft release, and a single BC Roller. This produces a 3:1 mechanical advantage with the weblock being the progress capture system.

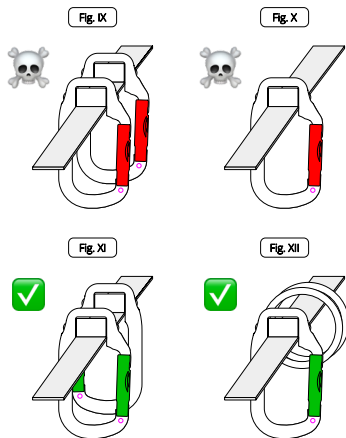
Figure VII - This is a 5:1 compound Buckingham system, which requires a single webbing grip, a low stretch sling (blue line the figure), a weblock with soft release, and 2 BC Rollers. This system achieves a higher advantage than the simple system while also reducing the friction within the weblock, resulting in a much higher actual mechanical advantage.

Figure VIII - This is a 9:1 Buckingham system, which requires 2 webbing grips, a weblock with soft release, and 3 BC Rollers. This stacks a 3:1 multiplier on top of the base 3:1 Buckingham system, resulting in a 9:1 mechanical advantage. This system should be used sparingly as it places a great deal of stress on the slackline webbing traveling through the weblock. Your actual mechanical advantage is much lower than 9:1 due to this friction. It also requires resetting your grips very often.

Note: the main webbing grip used in the above methods (the grip on the far right of each diagram) needs to be a full-sized grip. There is a lot of force at this point in the system, so high grip strength is a must. No micro grips should be used in this location.

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8. Use as a Transportation Device



The BC Roller can be used as a transportation device with dynamic loads. However, you may not use the BC Roller without a secondary connection to the line being transported over. The dynamic load should not exceed 4 kN. High speeds can cause damage to both the line and the BC Roller, so take care to keep speeds low when traveling along the line. Due to this, it is recommended to use gloves when rolling along a line with the BC Roller. Using bare hands to brake yourself can lead to a serious burn.

Figure IX - A pair of BC Rollers with the gate facing the same way is not a safe transportation method. A mishap with your limbs or other gear can cause both BC Rollers to disconnect from the line.

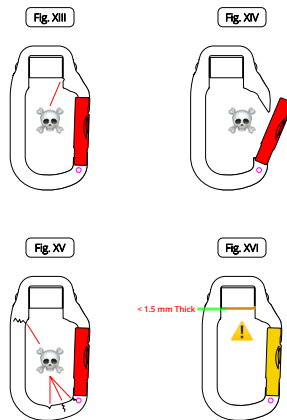
Figure X - The BC Roller cannot be used as a single point connection to a line. You must use a secondary connection, such as a leash or second BC Roller, with gate facing opposite direction.

Figure XI - A pair of BC Rollers with gates facing opposite directions is a safe method of transportation along a line.

Figure XII - A single BC Roller with a set of leash rings is a safe method of transportation along a line.

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9. General Usage Warnings



Above you will find some common misuses the BC Roller may encounter. Please monitor your device for these dangerous situations. If any of these situations occur, retire your BC Roller immediately.

Figure XIII - When using the BC Roller as a transportation device, grooves can develop along the side-rails of the device. Monitor for these grooves as they can lower the strength of the device significantly.

Figure XIV - If the BC Roller is loaded excessively with the gate open, it is possible that the gate can invert to be on the outside of the body of the device.

Figure XV - If the BC Roller is dropped from a high point or is packed with other metal components, it is possible that cracks and deformations can develop around the body of the device.

Figure XVI - When using the BC Roller for tensioning or as a transportation device, it is important to monitor how the webbing is interacting with the roller and body of the device. A thin webbing, less than 1.5mm thick, may work its way into the gap between the roller and body. Take care to prevent this from happening.

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10. Additional Information

Please note, there are several other configurations to use the BC Roller in. This manual only covers some of the more common use-cases with the device. It is up to you, the owner of the device, to stay in the know and keep yourself updated on the best practices with this device. Please monitor our website, found on the last page of this manual, for more information and up-to-date instructions on the BC Roller.

11. Legal Disclaimer

Balance Community, LLC is not liable for damage to the device or injury to yourself or other persons caused by the misuse of the BC Roller - particularly when warnings and suggestions are ignored. You confirm with your purchase of the BC Roller that you have reviewed these warnings and suggestions and understand them completely. If you decide to sell your BC Roller, please include this safety manual with the sale.

Slacklining is an inherently dangerous activity that can lead to serious injury or death. The use of the BC Roller is at your own risk. You are responsible for obtaining information on the correct usage of the device. Every user assumes all risk and accepts full responsibility for any and all damage or injury that occurs from use of the BC Roller.

The BC Roller was designed exclusively for slackline and highline use, and may not be used for other purposes. Before every use, the device should always be thoroughly inspected for damage or excessive wear described under section 5. The device should be retired immediately if any questionnable is found.

If you, the user, are not in a position to take full responsibility for the consequences that may arise from the use of this device, do not use the BC Roller.

Anyone under the age of 18 must have adult supervision when using the BC Roller.

This manual is to serve as a basis of understanding for using the BC Roller. It is **not exhaustive**. You are responsible for obtaining up-to-date information regarding the proper use of this product.

12. Manufacturer Contact

Balance Community, LLC
 Lyons, CO 80540
 USA

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 Email: info@balancecommunity.com
 Phone: +1.818.527.5225

Please report any and all accidents or incidents to the International Slackline Association (ISA) through their Slackline Accident and Incident Report (SAIR) form through the following link:

<https://sair.slacklineinternational.org>

Balance Community, LLC is an industry partner of the ISA. You can view more information about this association at their website here:

<https://www.slacklineinternational.org>

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