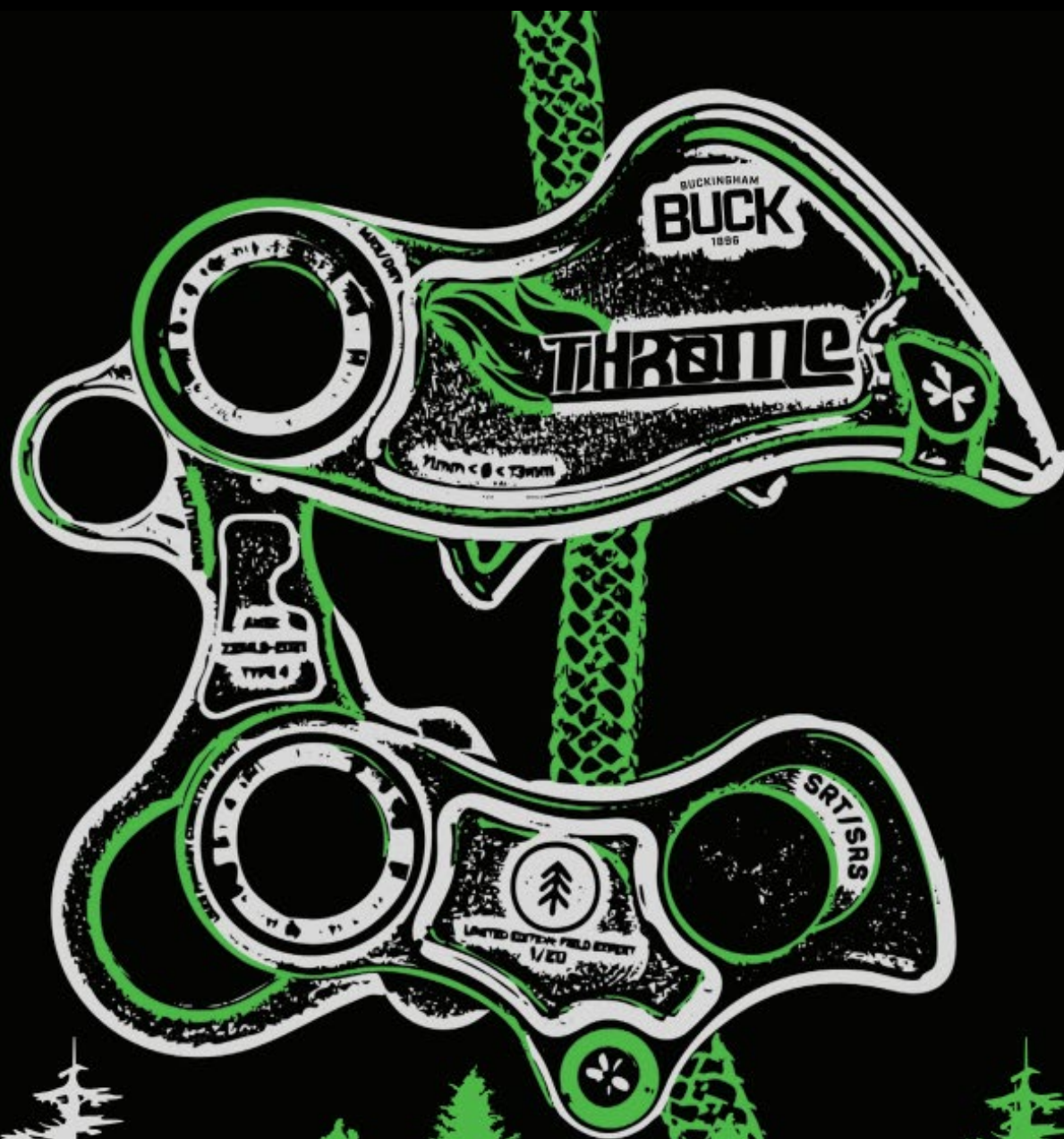


SCAN QR CODE FOR  
INSTRUCTIONAL VIDEOS



**BUCK TREE**  
BUCKINGHAM MFG



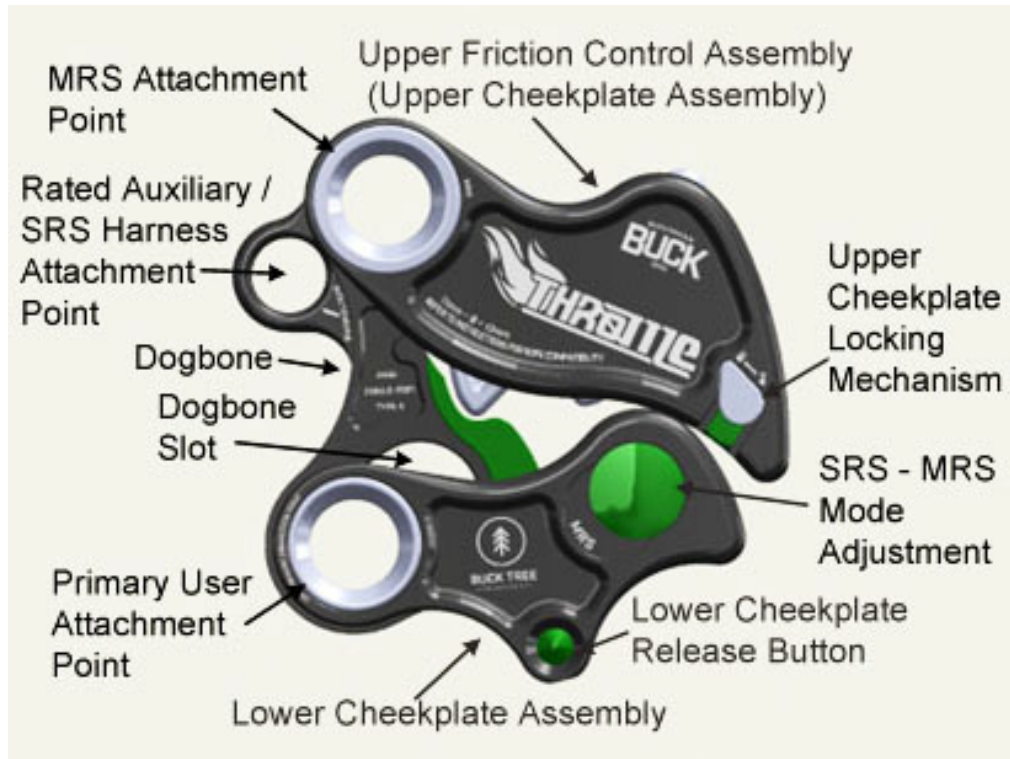
# BUCKINGHAM MFG.

## PN THROTTLE – DESCENT CONTROL DEVICE

### FOR STATIONARY & MOVING ROPE SYSTEMS

#### Instructions / Warnings

Warning: Do not use this product if you cannot understand and follow the instructions and warnings that come with it and complete all necessary functions.



Buckingham's THROTTLE is a versatile mid-line attachable (Type 4 ANSI Z359.9 rated) descent controller that allows the user to ascend, descend or position on either a Stationary Rope System (SRS) or Moving Rope System (MRS) without changing equipment or detaching from your saddle. The THROTTLE is equipped with a toolless friction adjustment mechanism for changing between SRS and MRS. The throttle can be used by a person within the weight range of 130 lbs. to 310 lbs. when fully equipped.

#### **COMPATIBILITY:**

The THROTTLE has been tested and marked to ANSI Z359.9 Type 4 Manual Descent Controller and can be used with compatible rope constructions (equivalent to those tested) with diameters within the nominal range of 7/16" to 1/2" (11mm to 13mm) (\*\*Listed below in Table #1). Rope must be Compliant or Certified with at least one of the following standards: ANSI Z133 Compliant or EN 1891 Type A or B Certification.

#### **Climbing Line/Rope:**

- Samson: 29/64" (11.7mm) Hyper Climb
- TEUFELBERGER: 1/2" Braided Safety Blue/Braided Hi-Vee
- Yale: 11mm-7/16" XTC-48 (Kernmaster)
- TEUFELBERGER: 11.5mm Tachyon
- Samson: 1/2" (12mm) ArborFreak
- Samson: 7/16" (11mm) Mercury

Table #1 BUCKINGHAM THROTTLE APPROVED ROPE QUALIFICATION/REQUIREMENTS:
ALL ROPES USED WITH BUCKINGHAM THROTTLE MUST MEET THE BELOW REQUIREMENTS:
ALL ROPES USED WITH THROTTLE MUST BE FUNCTION AND LOAD TESTED ON THE GROUND PRIOR TO EVERY ASCENT.
1. <u>11 -13 mm (1/2") 16-Strand: Nylon/Polyester or 100% Polyester Blend.</u> ANSI Z359.9 (Type 4) testing was completed with: <ul style="list-style-type: none"> <li>• Samson: 1/2" (12mm) ArborFreak</li> <li>• TEUFELBERGER: 1/2" Braided Safety Blue/Braided Hi-Vee</li> </ul>
2. <u>11 -13 mm Double Braids: 100% Polyester</u> ANSI Z359.9 (Type 4) testing was completed with: <ul style="list-style-type: none"> <li>• Samson: 29/64" (11.7mm) Hyper Climb</li> </ul>
3. <u>11-13 mm Kernmantle Double Braid Static</u> ANSI Z359.9 (Type 4) testing was completed with: <ul style="list-style-type: none"> <li>• Yale: 11mm-7/16" XTC-48 (Kernmaster)</li> </ul>
4. <u>11-13 mm Kernmantle Parallel Core Static</u> ANSI Z359.9 (Type 4) testing was completed with: <ul style="list-style-type: none"> <li>• Samson: 7/16" (11mm) Mercury</li> </ul>
5. <u>11 -13 mm Double Braids: Nylon or Polyamide/Polyester Blend</u> ANSI Z359.9 (Type 4) testing was completed with: <ul style="list-style-type: none"> <li>• TEUFELBERGER: 11.5mm Tachyon</li> </ul>

### Important Safety Notes:

- Always match hardware with manufacturer-approved ropes.
- Test the THROTTLE's function and friction-holding ability close to the ground before ascending.

### Hardware / Connectors:

Use only ANSI Z359.12 rated Carabiners/Hardware with the THROTTLE and Lifeline.

The THROTTLE was designed to be used with oval style carabiners, Buckingham recommends using only ANSI Z359.12 certified carabiners such as our aluminum triple locking carabiner (PN 5555S10).

Using carabiners of other shapes or styles may cause functionality limitations, including the inability to rotate or spin the carabiner 180 degrees around the spine.

### Arborist Saddles:

The THROTTLE was designed to be used only with Arborist saddles rated to ASTM F887 current revision and only with approved frontal suspension attachment points.

### INSTALLING THE THROTTLE ON THE CLIMBING LINE:

The THROTTLE is designed with Rope Capture Technology, which secures your climbing line within the upper cam assembly. This feature requires a specific action to properly install or remove the THROTTLE from the rope.

You are installing the THROTTLE onto your rope, not threading the rope into the THROTTLE. Follow the steps below to install the THROTTLE on your rope. Scan the QR code for Buckingham's THROTTLE Installation Video Link.





### Midline Attachment:

- Open the upper cheekplate by locating the knurled locking mechanism (Fig. 1).
- Once located engage the knurled component by positioning your fingers in the grip areas and applying downward push or pull force. (Fig.2).
- While holding the knurled locking mechanism down, rotate it clockwise to release the plates from each other (Fig. 3).

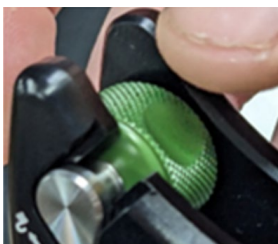


Fig. 1



Fig. 2

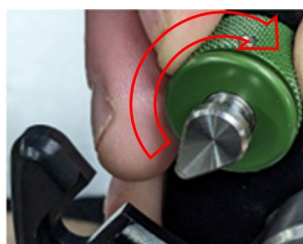


Fig. 3

- While keeping tension on your climbing line, place the rope between the upper portion of the articulating cams while putting pressure on the rope with your thumb (Fig. 4).
- Move the device up and the rope will seat itself between the cams (Fig. 5).
- Close the cheekplates by pressing the two together (Fig. 6).
- Ensure that the cheekplate locking mechanism rotates counterclockwise and securely locks in the cheekplate (Fig. 7). Fig. 8 shows an example of a cheekplate not completely closed.

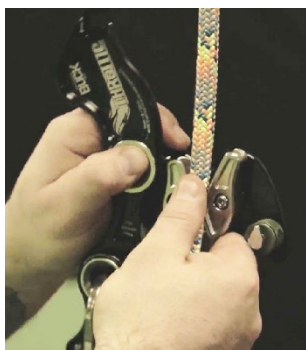


Fig. 4



Fig. 5



Fig. 7

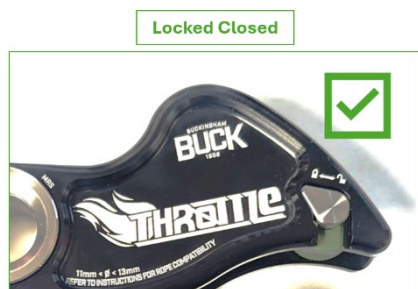
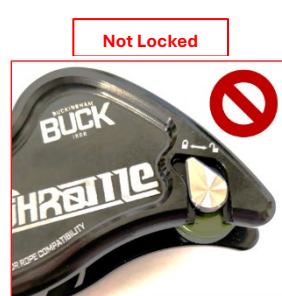


Fig. 8



## Installing Lower Cheekplate Assembly onto Rope:

- Locate the lower cheekplate release button and depress it to release the plates from each other (Fig. 9 & 10).
- Insert the climbing line along the “Rope Path” diagram on the inside of the cheekplate (Fig 10). The rope should go in front of the lower friction barrel of the lower cheekplate release button and behind the roller of the SRS-MRS Mode Adjustment (Fig. 11).
- Close the cheekplates by pressing the two together, ensuring that the cheekplate release button securely locks in the cheekplate (Fig. 12).
- Properly installed THROTTLE should appear as shown in Fig. 13 & 14).



Fig. 9



Fig. 10



Fig. 11



Fig. 13



Fig. 14

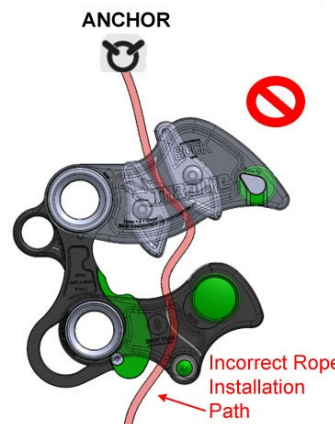


Fig. 15 & 16 show the THROTTLE installed incorrectly, with the climbing line behind the lower cheekplate release button.

Fig. 15



Fig. 16



### **CHANGING FROM SRS TO MRS - SRS-MRS MODE ADJUSTMENT:**

- Locate the lower cheekplate release button and depress it to release the plates from each other (Fig. 17)
- Locate the SRS-MRS Mode adjustment locking button behind the roller assembly (Fig. 18).
- Press the button downward to unlock the SRS-MRS Mode adjustment (Fig 19 & 20).
- Slide the SRS-MRS Mode adjustment to the desired position, "SRS" will be visible when in SRS mode, and "MRS" will be visible when in MRS mode (Fig. 21 & 22).



Fig. 17



Fig. 18



Fig. 19



Fig.



Fig. 21



Fig. 22

- Ensure the SRS/MRS Mode adjustment is fully seated and locked in the desired position, either SRS or MRS.
- Once fully seated close the cheekplates by pressing the two together, ensuring that the cheekplate release button securely locks in the cheekplate (Fig. 23).

**⚠ WARNING:** The SRS-MRS Mode adjustment must be fully seated and locked in the desired position for the cheekplates to close completely and lock. When changing from SRS to MRS make sure the SRS-MRS Mode adjustment is fully seated, the cheekplates fully close and the cheekplate release button securely locks in the cheekplate (Fig. 23). Fig. 24 shows the adjustment assembly not fully seated.



Fig. 23



Fig. 24

**NOTE:** SRS to MRS adjustment cannot be made when the cheekplates are closed and locked.



## **THROTTLE FUNCTION AND USE:**

### **On The Ground Function, Load & Bounce Test:**

Before climbing, always perform the following tests at ground level in a risk-free environment.

1. **Verify Operation:** Ensure the THROTTLE properly advances, stops, and descends on the rope in both Stationary Rope System (SRS) and Moving Rope System (MRS) modes.
2. **Install the Device:** Securely install the THROTTLE onto the climbing line following the installation instructions above.
3. **Connect to the Primary Attachment Point:** Use an ANSI Z359.12 rated locking carabiner to connect to the Primary User Attachment Point of the THROTTLE.
4. **Load Test:** While standing on the ground slowly transfer your full body weight into the THROTTLE with your hands off of the device. The THROTTLE should not slip on the climbing line, if slippage occurs follow step 6 below.
5. **Bounce Test:** While fully suspended from the THROTTLE introduce a moderate bounce into the system to check for unintended descent slippage (Fig. 25). The THROTTLE should not slip on the climbing line, if slippage occurs follow step 6 below.
6. **If Slippage Occurs:**
  1. **Check SRS-MRS Mode Setting:** Ensure the THROTTLE is correctly set for SRS or MRS mode following the instructions above.
  2. **Inspect for Wear:** Examine both the THROTTLE and the rope for signs of excessive wear or damage.
  3. **Try a Different Rope:** Use a rope with a different construction or a larger diameter if slippage persists.
  4. **Consider Environmental Factors:** Performance may be affected by temperature, moisture, or other environmental conditions.

Fig. 25



**⚠ WARNING:** Perform all function and load tests with the THROTTLE at ground level, in a risk-free environment before working at height. A different climbing line may need to be implemented if: creep or unintended descent is detected on the rope, switching climbing methods such as from using Moving Rope System (MRS) to Stationary Rope System (SRS), environmental changes (temperature, moisture, etc.), or changing new, alternative construction or rope diameter.

### **THROTTLE WORK POSITIONING AND LIMB WALKING GUIDELINES:**

1. **Moving Away from the Trunk:** Depress the Upper Friction Control Cheek plates of the THROTTLE to allow the rope to pass smoothly upwards through the device.
2. **Limb Walking Toward the Trunk:** Pull the rope outward and upward through the bottom of the device while advancing toward the trunk.
3. **Maintain System Tension:** Never allow slack in your climbing system. Always keep tension to prevent dangerous shock-loading.
4. **Stay Below Your Anchor:** Keep tension on your climbing line at all times and remain below your anchor point.

5. Anchor Selection: Read and follow all recommendations of the most current edition of the ANSI Z133 standard which pertains to safety requirements for Arboricultural Operations.

#### **CARABINER ALIGNMENT AND LOADING:**

- Carabiners must only be loaded in line along its major axis (Fig. 26).
- Never cross load or gate load a carabiner (Fig. 27 & 28 & 29).



Fig. 26



Fig. 27

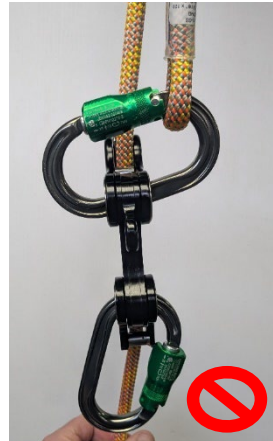


Fig. 28



Fig. 29

#### **USING THE THROTTLE IN A STATIONARY ROPE SYSTEM (SRS) AND MOVING ROPE SYSTEM (MRS):**

Stationary Rope System (SRS) – The THROTTLE can be used to ascend, descend and hold a position on a single leg of anchored rope without the need for additional friction. THROTTLE rigged for SRS (Fig. 29).

Moving Rope System (MRS) - The THROTTLE can also be used to ascend, descend and hold a position on one rope doubled over an anchor point and connected back to the THROTTLE's MRS connection point. THROTTLE rigged for MRS (Fig. 30).

Both systems have advantages & the THROTTLE was designed and optimized for both!

- SRS is more energy-efficient for long ascents and provides easier positioning.
- MRS allows for easier lateral movement in the tree and is often preferred for traditional climbing techniques.

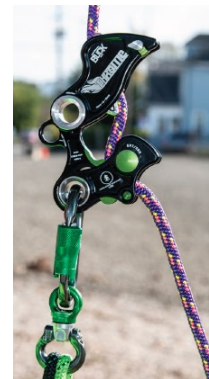


Fig. 29

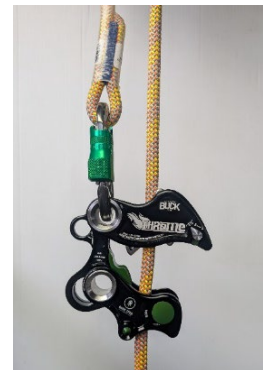


Fig. 30

#### **Ascending in SRS (Stationary Rope System):**

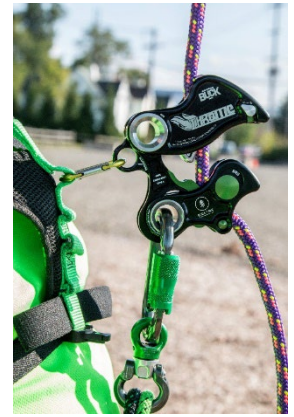
In an SRS (Stationary Rope System) setup, the rope is anchored at a fixed point, and you ascend a stationary climbing line using the THROTTLE and other mechanical aids for efficiency and safety.



### Steps for Ascending in SRS:

Fig. 31

1. Attach the THROTTLE to the climbing line.
2. Connect the THROTTLE to the primary attachment point on your arborist saddle.
3. Connect your SRT/Chest Harness to the THROTTLE's designated SRT attachment point (Fig. 31). For example, Buckingham BuckTop U6270
4. Use a foot ascender and/or knee ascender to generate upward movement efficiently.



**⚠ WARNING:** Never ascend using the THROTTLE in conjunction with a hand ascender with foot loops!

5. Maintain smooth, controlled movements to minimize fatigue and ensure an efficient ascent.
6. Upon reaching your desired height, transition into your work positioning system, ensuring your tie-in point and all safety backups are secure.

### Ascending in MRS (Moving Rope System):

In an MRS (Moving Rope System) setup, the rope moves through a pulley or friction saver at the anchor point, allowing both sides of the rope to travel as you ascend.

### Steps for Ascending in MRS:

**⚠** Buckingham does not recommend using the THROTTLE in MRS without a Friction Saver or Pulley configuration at the anchor.

1. Attach the THROTTLE to the climbing line.
2. Connect the THROTTLE to the primary attachment point on your arborist saddle.
3. Secure the anchor side of your rope to the THROTTLE's designated MRS attachment point (Fig. 32).
4. Use an efficient ascent technique to generate upward movement, such as:
  - Foot Ascender
  - Floating Knee Ascender System
  - Footlock Technique
  - Hip Thrust Method
5. Upon reaching your desired height, transition into work positioning, ensuring your tie-in point and all safety backups are secure.

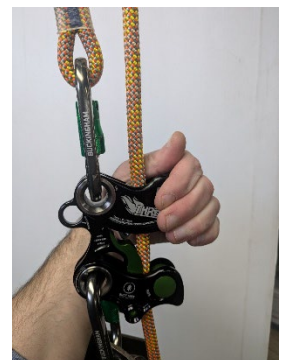
### Descending in SRS & MRS:

To initiate descent, place the top of your palm (where your fingers start) over the center of the upper friction control assembly. Gradually rotate the assembly downward to begin your descent. (Fig. 32 – SRS Fig. 33 – MRS)

Fig. 32



Fig. 33



### **Best Practices for Controlled Descent:**

- For optimal control, your knuckles should be in line with your climbing line and centered over the upper friction control assembly. Your palm and wrist should work together to regulate your descent.
- Do not rely on your fingers to control descent, as this is not recommended.
- Place your free hand on the rope trailing from the THROTTLE for added control and an additional safety measure.
- Do not actuate the lower plates with your hand. You should only manually actuate the upper plates. In the event lower plates are actuated downward you must pull them back up by pulling the tail of the rope upwards towards anchor.
- Always descend in a controlled manner.

**⚠ WARNING:** This device does not have a panic-stop feature. Stopping requires completely releasing the device. Continuous downward pressure on the upper friction control assembly will result in rapid descent, leading to potential injury or death. Always maintain controlled movements and be prepared to release the device to stop descent safely.

### **Emergency Stop Procedure:**

If creep or uncontrolled descent occurs, firmly push up on the upper friction control assembly to slow or stop your descent.

### **THROTTLE SAFETY & USAGE GUIDELINES:**

#### **General Instructions & Warnings:**

- Prior to using this product, read and follow all recommendations of the most current edition of the ANSI Z133 standard which pertains to safety requirements for Arboricultural Operations.
- This equipment is for use by trained professionals only. Do not use it without proper training.
- Employers must ensure that employees are instructed on the correct usage and warnings before using this equipment.

#### **Weight & Descent Limitations:**

- Designed for users weighing between 130 lbs. and 310 lbs. when fully equipped.
- The THROTTLE is only to be used with a maximum continuous descent range of up to 100 feet.
- Uncontrolled or prolonged descents or descents with heavy loads may cause damage to the equipment or injury to the user.
- The THROTTLE **is not a fall arrest device** and must not be used as one or subjected to impact loading.

#### **Equipment Compatibility & Selection:**

- Ensure compatibility between the descent controller, descent rope, and connectors. Incompatibility may result in serious injury.
- The Throttle must be used with a compatible connector and harness/saddle meeting applicable standards.
- Fall arrest backup equipment is strongly recommended when using the THROTTLE for work or training.
- Descent controllers must be used to limit or eliminate free-fall potential.

**Pre-Use Inspection & Testing:**

- Inspect the system for excessive wear or damage before each use as noted in the Inspection section of this document.
- Perform a function, load & bounce test before each use as noted above.
- Verify the integrity of the tie-in point and climbing system operation.
- Do not use the THROTTLE on frozen, icy, muddy, worn, or extremely dirty ropes.

**Anchor & Climbing Line Requirements & Operational Precautions:**

- Always stay below the anchor point with the system under tension to prevent shock loading, which may damage the system.
- Ensure the THROTTLE does not contact tree limbs or other objects during use.
- Maintain adequate separation between the THROTTLE and the static side of an MRS climbing line to prevent unintended contact.
- Avoid contact with:
  - Sharp edges, corners, or abrasive surfaces (e.g., metal, concrete, stone).
  - Chemicals, high-temperature surfaces, welding, electrical hazards, or moving machinery.
- Guard against entanglement with hair, loose clothing, branches, twigs, or other items.
- Ensure the THROTTLE does not come into contact with the tree, limbs or other foreign objects during use. Downward pressure on the THROTTLE's Upper Friction Control Assembly will result in a rapid descent, which may cause serious injury or death.

**Environmental Considerations:**

- The THROTTLE is tested and approved for use within a temperature range of - 40°F to 134°F.
- Environmental factors such as temperature, moisture, and rope conditions may affect performance.

**Connector & Attachment Safety:**

- Always visually inspect connectors before each use:
  - Ensure the connector freely engages the descent controller, D-ring, rescue loop, or anchor point.
  - Confirm that the gate is fully closed—do not rely on feel or sound alone.

**Proper Connector Positioning:**

- Carabiner gates must never be load-bearing.
- Never disable the gate on a carabiner or alter a connecting device.

**EMERGENCY PLANNING & ADDITIONAL SAFETY MEASURES:**

- Always have an emergency plan in place before using this equipment.
- Consider using a personal fall arrest system in conjunction with the THROTTLE.
- Buckingham highly recommends never working without independent fall arrest protection if a fall is possible.



- Ensure compatibility between this product and all other components in your climbing system.
- Activities involving this equipment are inherently dangerous. You are responsible for your own actions and decisions when using this equipment. Before use, you must:

- ✓ Read, understand, and follow these and all related equipment instructions.
- ✓ Fully understand the capabilities and limitations of this equipment.
- ✓ Receive proper training from a competent trainer.
- ✓ Acknowledge and accept all risks associated with its use.

⚠ If you are unable to follow these instructions, DO NOT use this equipment.

### **INSPECTION & VERIFICATION REQUIREMENTS:**

🔍 **FREQUENCY OF INSPECTION:** In addition to inspection before, during, and after each use, it is recommended that a detailed inspection by a competent inspector be done at least every 3 months (or more frequently, depending on amount and type of use) following the inspection criteria below. Make a copy of these instructions and use one as the permanent inspection record; keep the other with the equipment.

### **⚠ ADDITIONAL CONSIDERATIONS:**

- Overloading or dynamic loading of the rope adjustment device may damage the anchor line and THROTTLE.
- This equipment is for personal use only—do not lend it to others.

### **🔄 DURING USE:**

- Regularly inspect and monitor the condition of the THROTTLE and all connectors within your climbing system.
- Ensure all components are correctly positioned and functioning as intended.

### **Inspection:**

Inspect before, during and after each use, carefully inspect each component. It is also recommended all components be inspected by a competent person every three months as a minimum. If any evidence of wear or deterioration as outlined below is observed, immediately cease use, destroy the product, and replace it with new equipment. Should any unusual conditions not outlined below 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. Co. for clarification. Failure to carefully and completely inspect your equipment could result in serious injury or death. The inspection should include, but not be limited to the following:

### **Descent Controller Inspection:**

- Unit is free of cracks – (usually depicted by fine jagged lines) and extensive wear or corrosion to the cam levers, housing, or attachment point eyes.
- Ensure both the upper and lower cheekplate assemblies rotate freely about the THROTTLE dogbone and the lower swinging cheekplate slides freely throughout the dogbone's oblong slot.
- Ensure the upper cheekplate assembly when in the fully compressed position springs back when released.
- Ensure both the Primary User and MRS attachment point thimbles rotate freely and show no signs of damage or excessive wear.
- Ensure the upper plate locking mechanism and lower plate release button both move freely, unlock with no binding and lock securely.

- Ensure that the friction adjustment mechanism for changing between SRS and MRS systems moves freely without sticking or excessive movement.
- Ensure the green rope guide shows no sign of excessive wear rope indicated by the green anodize being worn away.
- Inspect the SRS ascent Harness / chest harness attachment point for damage or wear.
- Check for the legibility of markings.
- Inspect for any other signs of wear or damage not listed above.

### **Rope Inspection:**

- Follow rope manufacturers inspection process.
- Use only compatible rope types and diameters 7/16" to 1/2" (11mm to 13 mm).
- Inspecting your rope should be a continuous process of observation before, during, and after each use.
- Inspect rope fibers for signs of excessive wear, burns, cuts, abrasions, kinks, knots, hockling, and ice buildup, and broken strands in any given area of the rope.
- If ice or snow build-up is noted, remove build-up prior to use by running the THROTTLE along the length of the rope. Ensure the THROTTLE is clean and free of packed snow or ice.
- Both outer and inner fibers contribute to the rope's strength. If either is worn, the rope will naturally be weakened. Open the rope strands and look for powdered fiber, which is one sign of internal rope wear. Do not use rope that has the red warning center or core exposed.
- Inspect the rope for frayed strands and broken yarns. Check for pulled strands. A pulled strand should be re-threaded into the rope, if possible, otherwise it may snag on a foreign object during use.
- Inconsistent texture or stiff areas can indicate excessive dirt or grit embedded in the rope or shock load damage. Check that rope has not become hard or compacted. A hard or compacted rope indicates reduced strength. Inconsistent diameter (flat areas, bumps, or lumps). This condition indicates core or internal damage from overloading or shock loading.
- With use, all ropes become dirty. Inspect for areas of discoloration that could have been caused by chemical contamination and may result in the rope becoming brittle or stiff.
- Inspect the thread of any stitched eye terminations for discoloration that could have been caused by chemical contamination and may result in the thread becoming brittle.
- Glossy or glazed areas that generally indicate signs of heat damage.
- Rope, rope stitching, splice and all whipped ends are free of defects. Stitched eyes have no loose, cut, or missing stitching and have a protective cover (shrink tube) over the stitching, and the cover must not be damaged, missing or torn.
- Ropes used with the THROTTLE are for personal use only. NOT for rigging, towing or hoisting.

NOTE: Also read and follow all other inspection criteria of all products used in conjunction with the THROTTLE.

### **CLEANING, STORAGE & MAINTENANCE:**

A dirty product should be washed with water and mild soap (a dish washing soap that removes grease such as Dawn) and rinsed in clean water, then allowed to dry thoroughly without using excessive heat. Do not store near solvents or corrosive chemicals or at extreme temperatures. Inspect your equipment carefully before use. This product should be stored and transported in a clean and dry environment out of direct sunlight and away from extreme climate conditions. Ropes should be stored on racks or hooks to provide ventilation and should never be stored on concrete or dirt surfaces. Avoid leaving the THROTTLE at the bottom of a bag or other non-ventilated areas.

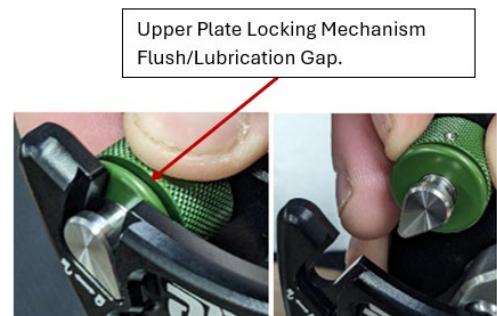
Lubricate moving parts after cleaning and at a minimum of every 100 hours of use or as often as required to maintain smooth operation (no binding) with light weight lubricant such as 3-IN-ONE multipurpose oil. If using your gear in or near a marine environment you should always rinse, thoroughly dry and re lubricate your equipment after each use.

#### Steps for Cleaning and Maintaining the Upper Cheekplate Locking Mechanism:

- Open the cheekplates and apply downward pressure and a back and forth rotation on the knurled locking mechanism while flushing with warm water mixed with a mild dish soap. Flush through the gap in the mechanism as shown (Fig. 33).
- After flushing, use a strong stream of compressed air to clear out any remaining debris from the friction adjustment mechanism.
- Apply 3-IN-ONE multipurpose oil into the gap of the knurled locking mechanism.
- Lubricate the knurled locking mechanism.
- Repeat these steps as needed until the friction adjustment mechanism functions properly.

Flush and lubricate any other areas of the THROTTLE that may have accumulated debris as listed above.

Fig. 33



#### **WARNINGS:**

**NO PANIC LOCK FUNCTION** – This device has no panic stop feature. Stopping requires completely releasing the device. Continuous downward pressure on the THROTTLE's upper friction control assembly will result in a rapid descent which may cause injury or death.

- These instructions shall be provided to the users at time of purchase, if another copy is needed contact Buckingham Manufacturing Co. at 1-800-937-2825.
- Completely read, understand, and follow all instructions, warnings, and guidelines pertaining to this and all associated equipment before use. Failure to do so could result in your serious injury or death.
- Prior to using this product, read and follow all recommendations of the most current edition of the ANSI Z133 standard which pertains to safety requirements for Arboricultural Operations.
- This equipment is intended for use by properly trained professionals only. Do not use without receiving proper training.
- Employer - instruct employee as to proper use and warnings before use of equipment.
- Please consult with your physician prior to using this product. Do not use this product under the influence of drugs or alcohol.
- This product is designed to be used by a person within the weight range of 130 lbs. to 310 lbs. maximum when fully equipped.
- The THROTTLE is only to be used with a maximum continuous descent range of up to 100 feet.
- The THROTTLE should not be used outside its limitations or for any purpose other than that for which it is intended.
- The THROTTLE should be considered a personal use item. Do not share with other users or lend to anyone.
- Uncontrolled or long descents or descents with heavy loads in excess of 310 lbs. may cause the descender to heat up causing damage to equipment or harm to the user. Buckingham recommends wearing appropriate gloves to prevent burns. Monitor the condition of your rope and inspect for damage if you suspect high temperatures.
- The THROTTLE is not a fall arrest device and must not be used as one or shock loaded.
- Incompatible selection or assembly of descent controller, descent rope, and connectors may result in serious injury.



- Only use connectors with a minimum gate rating of 3600 lbf. and meeting ANSI Z359.12 requirements.
- The use of fall arrest back up equipment is highly recommended in conjunction with the descent controller in work or training applications.
- Prior to each use a function and load test must be performed while standing on the ground by gradually adding your weight and then slightly bouncing into the system to determine the climbing system is operating properly and to test the anchor / tie-in point.
- Plans should be in place to deal with any emergencies that could arise.
- Always stay below the anchor point, with the system under tension to avoid pendulum effect and any shock loading. Shock loading may damage the system. Mechanical descenders when shock loaded can tear the sheath of the rope or sever the rope completely.
- Descent controllers must be used in a manner to limit or eliminate free fall potential.
- Equipment subjected to impact loading must be immediately removed from service, destroyed, and discarded.
- This descent controller has been tested in and can only be used in the temperature range of -40° F. to 134° F.
- Fall protection equipment, (i.e. fall arrest, work positioning belts, retrieval, suspension, rescue etc.) should not be resold or provided to others for re-use after use by original user as assurance cannot be granted that a used product meets criteria of applicable standards and is safe for use to a subsequent user.
- Do not modify or alter this product or any safety product in any way.
- Only Buckingham Mfg. Co. or those people authorized in writing by Buckingham Mfg. Co. may make modifications / repairs to this equipment.
- Always visually check that: 1) each connector freely engages Descent controller, D-ring, Rescue Loop or anchor point, 2) gate is completely closed with each use. Never rely solely on the feel or sound of a connector engaging.
- Make sure each connector is positioned so that its keeper / gate is never load bearing.
- Never disable gate on carabiner, punch holes in or alter a connecting device in any way.
- Never use these units where contact of the rope with sharp edges, corners or abrasive surfaces are likely. Sharp and abrasive surfaces may include but not be limited to (sheet metal, steel, concrete, block, stone, laminated materials etc.).
- Avoid contact of this equipment with chemicals, abrasive surfaces, high temperature surfaces, welding, or other heat sources, electrical hazards, or moving machinery that may damage the material. If in doubt, contact Buckingham Mfg. Co.
- Ensure the THROTTLE does not come into contact with the tree, limbs or other foreign objects during use. Downward pressure on the THROTTLE's Upper Friction Control Assembly will result in a rapid descent, which may cause serious injury or death.
- Do not actuate the lower plates with your hand. The user should only manually actuate the upper plates. In the event lower plates are actuated downward you must pull them back up by pulling the tail of the rope upwards towards anchor.
- Ensure adequate separation between the THROTTLE and the static side of a Moving Rope System (MRS) climbing line to prevent unintentional contact with the THROTTLE.
- Guard the Descent controller from environmental effects. Do not use on frozen, icy, muddy, worn or extremely dirty ropes.
- Guard against hair, loose clothing, branches or twigs or other items being pulled into the descent controller.
- In exceptional circumstances, wear or damage could occur on the first use which reduces the lifetime of the product to that one single use.
- This equipment is for personal use only, not rigging, hoisting or towing.
- Give consideration to using of a personal fall arrest system in conjunction with the descender in work or training applications. Buckingham highly recommends never working without independent fall arrest protection if there is danger of a fall.
- Verify that this product is compatible with the other components of your system. See the instructions to those products.

## 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 the 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).

Patent Pending

**BUCKINGHAM MFG.**  
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Information contained in these written instructions supersedes all other information (written, audio, video etc.) produced by Buckingham Mfg. prior to the revision date of this document.

