

BUCKINGHAM MFG.

KIT181 - Bucket Rescue Training Kit

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.

Read carefully, understand, and heed these instructions, inspections, labeling, and warnings pertaining to this and all associated equipment, before using this equipment. Failure to do so could result in serious injury or death. These instructions shall be provided and be available to authorized personnel.

- Buckingham's Bucket Rescue Training Kit (PN KIT181) is a vertical lifeline kit designed to be used as a backup safety system when training with Buckingham self-rescues units such as PN 101SR, 301SR and 401SR. KIT181 is supplied with a ratcheting boom strap with D-ring to act as a temporary anchorage. A 35' descent line is girth hitched at one end to the boom strap D-ring. A mobile fall arrester with Oxan carabiner is included to be attached to the descent line and connected with the carabiner to one end of the energy absorbing lanyard (BuckSorber I). A locking carabiner is included to attach the other end of the BuckSorber to the user's dorsal attachment point on their full body harness.
- The Mobile Fall Arrester (MFA) supplied with this kit is designed to be used by workers with a maximum weight of 350 lbs. when used with Buckingham's BuckSorber I, when fully equipped and used with an equivalently weight rated harness / accessories. Kit 181 used as indicated in this document meets the static strength and dynamic performance requirements such as maximum arrest force, average arrest force and total fall distance of ANSI Z359.15-2014. This kit and any of its components must be used only as described and not be used for any other purpose. See Fig. 1 below for kit components.

KIT181 contains the following components
(hardware, options, colors may vary from that shown):

- A - Carry Bag
- B – Ratcheting Boom Strap
- C – BuckSorber I Energy Absorber
- D – ASAP - Mobile Fall Arrestor (MFA)
(supplied with Oxan carabiner)
- E – Locking Carabiner
- F - Training Line

Fig. 1



PRIOR TO USE:

- This equipment is intended for use by properly trained professionals only.
- Acquire relevant training and competence for using this system prior to first use.
- KIT181 is designed to be used only with a compatibly rated full body harness equipped with approved dorsal attachment point suitable for rescue.
- Know the job and the regulations governing requirements and select proper equipment.
- The manufacturer's instructions shall be provided to users with this product. Read and understand all instructions and warnings provided by Buckingham included with the product as well as all associated equipment before use.
- This kit must be properly inspected, installed, adjusted and used in accordance with the manufacturer's instructions to function as designed and intended. Proper use of this device according to Buckingham's warnings and instructions is the user's responsibility. Death or serious injury may result to the user in the event that the device is used incorrectly.

- Work at height is a high-risk activity. It is your responsibility to manage those risks. Failure to manage risks may result in serious injury or death.
- Understand the scope of application of each component and any limitations.
- Accept that there can be no claim for damages, injury or death resulting from misuse of equipment.
- Visually inspect this product, and all related equipment, before each use. See inspection criteria below. The inspection should include but not be limited to the following:

INSPECTION:

General Inspection:

- Inspect the entire system for any signs of wear or deterioration.
- Inspect the ratcheting boom strap for proper D-ring attachment to the strap and that the descent line is properly girth hitched to the D-ring.
- Check that the ratcheting mechanism operates properly and has no corrosion or any other defects.
- Inspect boom strap webbing for any pulled, broken, or missing stitching or excessive fraying.
- Check BuckSorber I for any signs of deployment or previous impact loading. Check outer cover has no broken stitches, tears, stretch marks or other evidence of impact loading.

Rope Inspection:

- Inspecting your rope should be a continuous process of observation before, during, and after each use.
- Inspect the entire length of rope for a torn or tears in the cover.
- Inspect rope fibers for signs of excessive wear, burns, cuts, abrasions, kinks, knots, hockling, ice buildup, broken strands in any given area of the rope.
Both outer and inner fibers contribute to the strength of the rope. 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 shows signs of excessive wear such as but not limited to those shown in Fig. 2a through 2d.
- 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.
- 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.
- Glossy or glazed areas that generally indicate signs of heat damage (Fig. 2c).
- Inspect the thread of the stitched eye for discoloration that could have been caused by chemical contamination and may result in the thread becoming brittle.
- Rope, or rope stitching and all ends are free of defects. Stitched eyes and have no loose, cut, or missing stitching (Fig. 2e).
- If ice or snow build-up is noted, do not use this product until build-up is removed by thawing. Ensure the Mobile Fall Arrester (MFA) and climbing lines are clean and free of packed snow or ice or of any debris. NOTE: Prior to and while in use, particularly in extreme weather conditions (i.e., blizzards, high winds, etc.) guard against debris (pebbles, twigs, packed snow, ice, mud, etc.) becoming lodged in any of the component assemblies as well as any buildup on the ropes, as debris / build up could block or restrict proper function. If noted, ensure unit is cleared.
- Do not use descent lines that have the warning center / core exposed (Fig. 2d).

See photos below for examples of a variety of conditions indicated above:

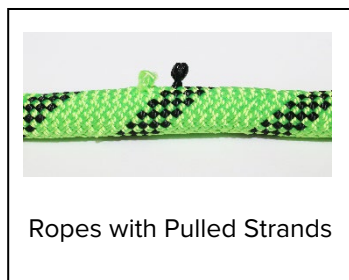


Fig. 2a



Fig. 2b



Fig. 2c

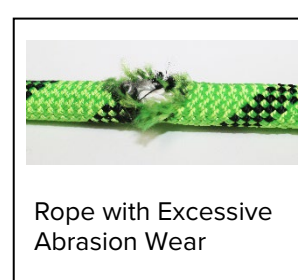


Fig. 2d

Hardware Inspection:

Fig. 2e



- All hardware and carabiners must be inspected, before and after each use.
- Inspections must ensure the Mobile Fall Arrester (MFA) has no missing or broken teeth and that all surfaces of the hardware and carabiners to be free of cracks, sharp edges, corrosion, burrs and excessive wear.
- Ensure carabiner gates operate freely, smoothly, close and lock completely.
- Inspect to ensure no cracks, distortion, corrosion, or nicks exist.

If any evidence of wear or deterioration as outlined is observed, immediately cease use, destroy the product, and replace it with new equipment. Should any unusual conditions not outlined above 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.

USE

- Prior to training remove all the contents from the KIT181 storage bag and read and follow all included individual component instructions.
- Attach the ratcheting boom strap with connected descent line to the boom. Recommended placement on the boom is approximately 3' away from the bucket with the D-ring facing outward or downward (Fig. 3). A minimum of 2 full wraps of webbing should be around the ratchet mechanisms winder bar after tightening. Care should be taken not to place an excessive number of wraps around winder bar as this may cause jamming.
- Remove the supplied Oxan carabiner from the Mobile Fall Arrester (MFA).
- Open the mechanism of the (MFA) and insert the KIT181 descent line as outlined in the Mobile Fall Arrester instructions.
- Re-attach the carabiner and perform a function test by sharply pulling down on the MFA.
- Connect the supplied Oxan carabiner through one of the eyes of the energy absorbing lanyard (BuckSorber I).
- Use the locking carabiner (Item E shown in Fig. 1) to connect through opposite eye of the BuckSorber I and the dorsal attachment on your full body harness.
- Enter the bucket and adjust the MFA so there is minimal slack in the descent line between the MFA and the boom strap (Fig. 4).
- Raise the bucket to your desired training height and drop the free end of the descent line to the ground.
- Have an assistant tie a stopper knot near the end of the descent line to prevent the MFA from slipping off the descent line. The stopper knot must be properly positioned based on bucket height to aid in the prevention of the user making contact with the ground in the event of improper use of the product. The stopper knot should be adjusted to a height so that the trainee's feet can only make slight contact with the ground, however, the stopper knot should be adjusted low enough that the trainee can stand and disconnect.
- Rig and attach your Self Rescue System that you intend to train with as outlined in that products instructions and so that it exits on a different side of the bucket from the backup system descent line. This will help prevent the lines from crossing and tangling.
- Once Properly attached, ensure the descent line is not obstructed and prepare to climb out of the bucket.



Fig. 3



Fig. 4

- Sit on the top lip of the bucket on the back side (opposite side you will be exiting).
- While sitting on the back lip of the bucket bring your legs up onto the front lip of the bucket (side you will be exiting).
- Slowly roll to your side and onto your stomach while keeping yourself positioned on the center of the front and back bucket lips.
- Position your waist on the front bucket lip with your legs hanging down in front of the bucket. While in this position you can verify the connection of your descent line to the anchor and that the descent line is properly lined up and free of obstructions.
- Use slow and controlled motions to lower yourself over the front lip and out of the bucket (Fig. 5). Ensure there is no slack in the self-rescue descent going to the anchor. Then carefully load your body weight into the descender of your self-rescue system until you are supported by it (Fig. 6). Never abruptly load the descender or descent line by jumping, bouncing, or sharply loading your weight into the system. When loaded with your weight, the descender of your self-rescue system will lock and prevent unintentional lowering.
- Never attempt a headfirst or a scuba style back roll (as shown in Fig. 7) out of the bucket and into the system.
- Follow the included instructions from your self-rescue system to make a slow and controlled descent to the ground.
- The MFA will travel down the back up descent line as you descend without any manual operation leaving your hands free to operate the descender of your primary self-rescue system (Fig. 8).



Fig. 5



Fig. 6



Fig. 7

WARNINGS

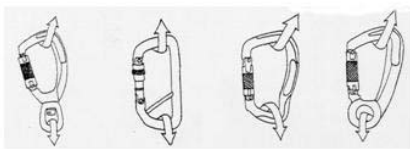
- ◆ Read carefully, understand, and heed these instructions, inspections, labeling, and warnings pertaining to this and all associated equipment; before using this equipment. Failure to do so could result in serious injury or death.
- ◆ This equipment is intended for use by properly trained professionals only who have received instructions and training from a trainer qualified in teaching all aspects of rescue. Do not use without proper training.
- ◆ Qualified instructors must understand the proper function and limitations of this system.
- ◆ It is the user's responsibility to obtain proper training from a qualified instructor.
- ◆ The MFA is a directional unit that will only lock in one direction. Ensure the MFA is properly mounted on the rope with the directional arrow on the unit pointing up, towards the anchor point.
- ◆ Be certain this equipment is suitable for the intended use and work environment. If suitability for intended use is in doubt, consult a safety engineer or contact Buckingham Mfg. before using.
- ◆ Use this product only in combination with compatible equipment.
- ◆ Fall protection equipment, (i.e., fall arrest, work positioning belts, rescue, retrieval, suspension 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.
- ◆ Before use, the user must ensure that: 1. Descent line is in good condition. 2. Rope is properly installed in the MFA. 3. Descent line is properly attached to anchor point. 4. Operational test by loading with your bodyweight is performed.
- ◆ Ensure a stopper knot is tied in the end of the descent line to prevent the MFA from slipping off the descent line. The stopper knot must be properly positioned to aid in the prevention of the user making contact with the ground in the event of improper use of the product. The stopper knot should be adjusted to a height so that the trainee's feet can only make slight contact with the ground, however, the stopper knot should be adjusted low enough that the trainee can stand and disconnect.



Fig. 8

- ◆ Use with the supplied approved rope or suitable replacement (Descent Line) only. Do not use MFA with a substitute rope.
- ◆ Guard against debris which could block the action of the MFA (pebbles, twigs, ice, snow, etc.).
- ◆ Guard against frozen conditions. Excessive ice or snow buildup will adversely affect the proper operation of the mechanical devices supplied with this system.
- ◆ Be certain the carabiners are positioned so that its gate is never load bearing. Ensure loads applied to carabiners are directed in the proper orientation. Proper and improper loading techniques are shown below in Figure 9.
- ◆ Always use slow and controlled motions when exiting the bucket and lowering yourself into the system.
- ◆ Never abruptly load the descender or descent line by jumping, bouncing, or sharply loading your weight into the system.
- ◆ Never attempt a headfirst or a scuba style back roll (see Fig. 7) out of the bucket and into the system.
- ◆ Ensure there are no uncovered sharp edge tools in the bucket that the descent line can come in contact with.
- ◆ Wearing gloves while using this product is highly recommended.
- ◆ Before use of the equipment, consideration should be given as to how any necessary rescue could be safely achieved. You must have a rescue plan and the means to implement it.
- ◆ Fall arrest anchor points must support a minimum of 5,000 lb. per attached worker and be independent of worker support. Positioning, suspension, and retrieval anchor points must support your weight plus any additional job related load.
- ◆ This Product is to be used for training purposes only. Do not use for hoisting equipment or material.
- ◆ User weight not to exceed 350 lbs. when fully equipped.
- ◆ Equipment subjected to impact loading must be immediately removed from service, destroyed and discarded.
- ◆ Use PPE equipment only for the specific purpose for which it is designed and intended.
- ◆ Use only with equipment meeting standards for intended use.
- ◆ Only Buckingham Mfg. Co. or those people authorized in writing by Buckingham Mfg. Co. may make repairs / modifications to this equipment.
- ◆ Before each use check that: 1) unit is free of burns, cuts, abrasions, kinks, knots, broken strands, excessive wear, worn or torn cover, or evidence of impact loading. 2) MFA has no broken teeth, is not bent, distorted, cracked, corroded or shows signs of excessive wear. Remove from service, destroy and discard unit if it does not pass this inspection and replace immediately.
- ◆ Replace if stitching is damaged, loose, cut, missing, or torn.
- ◆ Never wrap the descent line around a sharp structural member. The material could be cut or damaged. 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 high temperature surfaces, welding or other heat sources.
- ◆ Avoid contact of this equipment with chemicals which may damage the material. If in doubt, contact supplier or Buckingham Mfg. Co.
- ◆ Use only connectors (snaphook / carabiners) having a minimum gate rating of 3600 lbf. and meeting the ANSI Z359.12 requirements for use with this system. Connect only the supplied Oxan carabiner with the MFA.
- ◆ Never use this system if you are currently taking any medication (including prescription) and/or using and/or consuming any substance, including alcohol, that may limit your ability to use this product in a safe manner as outlined in these instructions.
- ◆ Avoid use this system during inclement weather or unsafe conditions including, but not limited to, thunderstorms threatening and/or present, winds, lightning, rain, snow, sleet, icy conditions, and/or any other atmospheric condition which may impede the user's ability to operate the product in a safe manner as a safe manner as outlined in these instructions.
- ◆ Always visually check that: 1) each carabiner engages anchor points or work positioning and or suspension points, 2) gate is completely closed with each use. **Never** rely solely on the feel or sound of a carabiner engaging.
- ◆ Never use combinations of components or sub systems, or both, which may affect or interfere with the safe function of each other.
- ◆ Never disable locking gate on a carabiner, punch holes in or alter a connecting device in any way.
- ◆ Employer - instruct employee as to proper use and warnings before use of equipment.

Proper Loading Techniques



Improper Loading Techniques

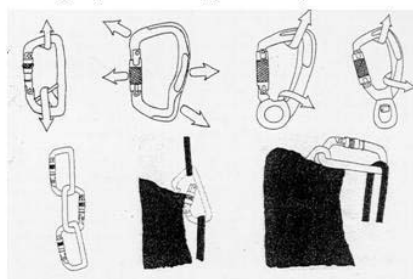


Fig. 9

Cleaning / Maintenance / Storage

- Proper maintenance and storage of your equipment will prolong its useful life and contribute toward its performance. Clean rope with water and mild soap (a dish washing soap that removes grease (i.e., Dawn)) and allow to air dry thoroughly without using excessive heat or sunlight.
- If necessary, hardware may be cleaned with a solvent based oil such as BuckLube, WD-40®, etc. that does not contain chlorine or chemicals corrosive to steel or zinc.
- Lubricate carabiner gates at least weekly or as often as required to maintain smooth operation (no binding) with light weight lubricant such as BuckLube, WD-40®, etc.
- Do not store near solvents or corrosive chemicals or at extreme temperatures. This product should be stored 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.
- Apart from visual examination of product before and after each use, it should be inspected at least twice a year by a competent person capable of determining the suitability for use.

NOTE: Ensure proper fit / size of product before use. This product cannot be returned unless it is in new / unused condition.

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.

BUCKINGHAM MFG.
BINGHAMTON, NY
1-800-937-2825
www.buckinghammfg.com

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.