

# BUCKINGHAM MFG.

## INSTRUCTIONS / WARNINGS (BuckYard – Model No. 8XXXXX)

- ◆ This equipment is intended for use by properly trained professionals only.
- ◆ Fall protection equipment, (i.e. fall arrest, work positioning belts, 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.
- ◆ Manufacturer's instructions shall be provided to the user of this product. If additional copy is needed, contact supplier, Buckingham Mfg. Co. at 1-800-937-2825 or website at www.buckinghammfg.com.
- ◆ Read, understand and follow all instructions and warnings attached to and/or packed with product before using this equipment.
- ◆ Employer - instruct employee as to proper use and warnings before use of equipment.
- ◆ Be certain this equipment is suitable for the intended use and work environment. It should only be used as personal protection equipment (PPE). If suitability for intended use is in doubt, contact supplier, consult a safety engineer or Buckingham Mfg. before using.
- ◆ ANSI Z359.13, CSA Z259.11-17, ASTM F887, and applicable OSHA regulations are standards / regulations utilized by Buckingham Manufacturing Co. for various energy absorbing lanyards manufactured. Energy absorbing lanyards are labeled to these standards as they are applicable.

The table below outlines energy absorber requirements according to these standards / regulations.

Users weight includes that of any tools or clothing.

X<sub>PEA</sub> = amount of deployment of the energy absorber based on worker weight and free fall distance.

\* If the user's weight is in between weight increments listed below, the next highest weight bracket shall be used.

STANDARD	MAXIMUM ALLOWABLE FREE FALL	STATED CAPACITY RANGE	MAXIMUM ARREST FORCE	AVERAGE ARREST FORCE	MAXIMUM ELONGATION
ANSI Z359.13	6 ft. (1.83 m)	130 lbs. - 310 lbs. (59 kg - 140.6 kg)	1800 lbs. (8 kN)	900 lbs. (4 kN)	48 in. (1.2 m)
ANSI Z359.13	12 ft. (3.66 m)	130 lbs. - 310 lbs. (59 kg - 140.6 kg)	1800 lbs. (8 kN)	1350 lbs. (6 kN)	60 in. (1.5 m)
CSA Z259.11 -17	1.83 m (6 ft.)	68 kg - 158.8 kg (150 lbs. - 350 lbs.)	8 kN (1800 lbs.)	3.63 kN (817 lbs.)	X <sub>MAX</sub> 1.6m (69 in)  * X <sub>PEA</sub> based on user weight:  68 kg (150 lb.) User .41m (16.2")  158.8 kg (350 lb.) User 1.37m (54")
OSHA 1926.502(d)(16)	6 ft. (1.83 m)	*** 310 lbs. Maximum (140.6 kg) Maximum	1800 lbs. (8 kN)	NA	42 in. (1.07 m)

\*\*\* If the system is used by an employee having a combined tool and body weight of 310 pounds (140 kg) or more, then the employer must appropriately modify the criteria and protocols of the Appendix to provide proper protection for such heavier weights, or the system will not be deemed to be in compliance with the requirements of OSHA 1926.502. (d)(16).

### NOTES:

- Buckingham's Energy Absorbing Lanyards are manufactured, tested and rated for use by a person with a maximum weight of 350 lbs. (158.8 kg) when fully equipped. At this weight rating, our product meets the maximum arrest force and elongation requirements of the above listed ANSI and OSHA standards/regulations.
- Specially Designed Buckingham Energy Absorbing Lanyards suffixed with "X4" are manufactured, tested and rated for use by a person with a maximum weight of 420 lbs. (190.5 kg) when fully equipped and only when used with an equivalently weight rated harness / accessories with free fall being limited to a maximum of 6 ft. (1.83 m). These units also meet the maximum arrest force and elongation requirements of the above listed OSHA regulations.
- Precise "useful life expectancy" for this product because of age is not specified, as the degree of use, the conditions under which it is used, and the degree of care and storage it is given determines useful life. It is the user's responsibility to ensure all personnel support equipment passes inspection before each use as well as by a competent person other than the user at intervals of no more than 1 year. As a minimum, danger points outlined in these Instructions/Warnings should be recognizable. Should there be any question regarding the safety of any piece of personal protective equipment, we require that use be immediately discontinued, and the product(s) involved be properly disposed of and replaced.

- ◆ Product must not be altered in any way.
- ◆ Only Buckingham Mfg. Co. or those people authorized in writing by Buckingham Mfg. Co. may make repairs to this equipment.
- ◆ In the event of a fall, the employee must have a rescue plan and the means to implement it.

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- ◆ Never use an energy absorbing lanyard for positioning. Unit can open and extend, which could result in a fall.
- ◆ OSHA requires that impact force in a fall NOT exceed an 1800 lbf. limit with a harness. Keep connecting device slack to a minimum to stay under these limits.
- ◆ Buckingham's BuckYard (Energy Absorbing Lanyard) is equipped with an impact load indicator label that is designed to deploy upon arresting a fall exposing this label making the text legible. If you can read the text, the Energy Absorbing Lanyard has been impact loaded. If a fall occurs or any evidence of wear, deterioration or impact loading as outlined is observed, immediately cease use, destroy the product and replace it with new equipment.
- ◆ Always attach BuckYard to designated rear D-ring attachment of a personal fall arrest system.
- ◆ If connecting to a personal fall arrest system by attaching directly through the web loop of the BuckYard carefully inspect the web loop to ensue no cuts, kinks, abrasions, burns, excessive swelling, excessive wear discoloration, charring, broken fibers, loose stitching and chemical or physical exposures exist.
- ◆ Energy absorbing lanyards should be considered as a part of a personal fall arrest system used in conjunction with a harness. Harnesses must be worn so the fall arrest attachment is centered in back near shoulder blade level. It is recommended that:
  - A connecting device and fall arrest attachment manufactured with a web loop be attached with a hitch or carabiner.
  - If using a locking snap hook to a web loop fall arrest attachment, the web loop must be protected by an integral wear piece to enhance visual inspection
  - Web loop fall arrest attachments must be inspected before each use. The inspection should include, but not be limited to ensuring no: webbing cuts, kinks, abrasions, burns, excessive swelling, excessive wear, discoloration, charring, broken fibers, loose stitching and chemical or physical exposures exist.

Note: The use of a locking snaphook to a web loop fall arrest attachment without an integral wear piece is acceptable in emergency situations (i.e. rescue, evacuation, etc.) Attachment of a locking snap hook to a web loop fall arrest attachment with no wear piece can cause premature wear of the webbing and stitching. This degradation can cause the web loop layers to separate and be incapable of supporting your weight. Therefore the web loop fall arrest attachment must be inspected before use. Additionally, connections used to attach to the fall arrest attachment must have a minimum gate rating of 3600 lbf. and meet ANSI Z359.12 requirements.

- ◆ Fall arrest anchor points must support a minimum of 5,000 lbf (22.2 kN) per attached worker and be independent of worker support.
- ◆ No fall protection system can guarantee that you will not sustain injuries should a fall occur. Therefore, BuckYards should be kept as short as possible to minimize free fall distance. OSHA requires that maximum length of energy absorbing lanyards provide for a fall of no greater than six (6) feet (1.8 m), allow no contact with any lower level and unit elongation not exceed 42" (1.07m).
- ◆ The fall arrest attachment point on the user should be in the middle of the back near shoulder blade level.
- ◆ When using a standard BuckYard, keep anchor point above rear fall arrest attachment. If climbing above anchor point, attach to a new anchor point higher up. If anchor point above the fall arrest attachment device is not available, BuckYard positioning must be such that free fall will be limited to a maximum of six (6') feet (1.8 m) or the specified overall length of the BuckYard, whichever is less and such that there will be no contact with a lower level. If anchor point is below fall arrest attachment a BuckYard with product number suffixed with X12 be used. See Fig. 1 for calculating fall distance / clearance for both standard and X12 BuckYards.

FC = Fall Clearance / Distance

LL = Lanyard Length

EL = Elongation Length

UH = User's Height

SF = Safety Factor (accounts for harness stretch)

Example: With a standard 6' Lanyard with 4' Elongation Length used by a 6' tall person.

$FC = LL + EL + UH + SF$

$FC = 6' + 4' + 6' + 3' = 19'$

**NOTE: The example shown below requires a special energy absorbing lanyard. Lanyard product number must be suffixed with X12.**

Example: With a 6' Lanyard (suffixed X12) with 5' Elongation Length used by a 6' tall person.

$FC = LL + EL + UH + SF$

$FC = 6' + 5' + 6' + 3' = 20'$

- ◆ Always work directly under fall arrest anchor point to avoid swing fall injuries (pendulum effect).
- ◆ Never wrap a BuckYard around a beam, sharp structural member or abrasive surface, as the material could be cut or damaged.
- ◆ Avoid contact of this equipment with high temperature surfaces, welding, or other heat sources, electrical hazards or moving machinery.
- ◆ Avoid contact of this equipment with chemicals which may damage the material. If in doubt, contact supplier or Buckingham Mfg. Co.
- ◆ Use PPE only for the specific purpose for which it is designed and intended.
- ◆ Never use this product as a tie back type lanyard as the length will be shortened and result in altering its energy absorption / extension properties.
- ◆ Always visually check that the snap hook/carabiner freely engages D-ring or anchor point and the keeper / gate is completely closed with each use. Never rely solely on the feel or sound of the snap hook/carabiner engaging.
- ◆ Use this product only with a harness compliant to applicable regulations / standards (e.g. OSHA / ANSI Z359.11/ ASTM F-887 / CSA Z259.11-17).

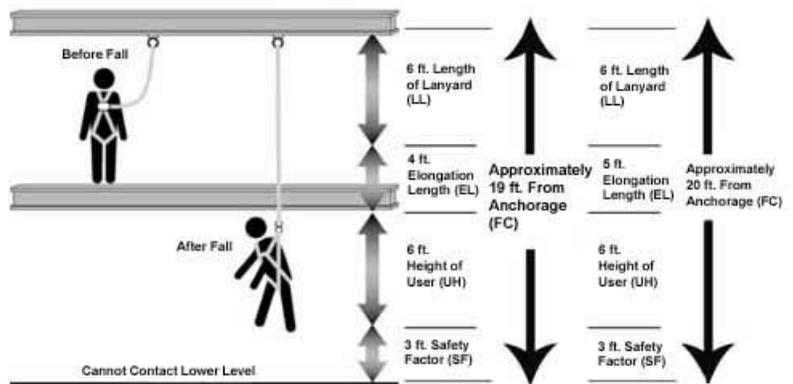
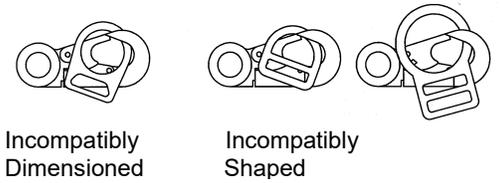


Figure 1

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- ◆ Before each use and additionally, by a competent person other than the user at intervals of no more than one year, check that: 1) unit is free of burns, cuts, abrasions, kinks, knots, broken strands and excessive wear. 2) snap hooks, carabiners and D-rings are not distorted or cracked and display no excessive wear. 3) snaphook/carabiner keepers / gates are not bent, free of burrs, clean and functioning properly. 4) outer cover has no broken stitches, tears, stretch marks or other evidence of impact loading. 5) the impact load indicator label has not been deployed (text showing). If the unit does not pass this inspection or you have questions regarding its continued usability, either mark it as “unusable”, remove it from service, destroy, discard and replace immediately or forward to your supervisor or the manufacturer for their review.
- ◆ Due to the rigorous strain leg irons and gaffs endure, inspection is extremely important.
- ◆ Ensure each snap hook / carabiner is positioned so that its keeper / gate is never load bearing.
- ◆ For personal use only. NOT for towing or hoisting.
- ◆ Unless the snap hook is a locking type and designed for the following connections, snap hooks should not be engaged:
  - ◆ directly to webbing, rope or wire rope,
  - ◆ to each other - they are not intended to be used that way and could twist apart,
  - ◆ to a D- ring to which another snap hook or other connector is attached,
  - ◆ to a horizontal lifeline,
  - ◆ to any object which is incompatibly shaped or dimensioned in relation to the snap hook such that the connected object could depress the snap hook keeper / gate a sufficient amount to cause it to release. (see illustration).



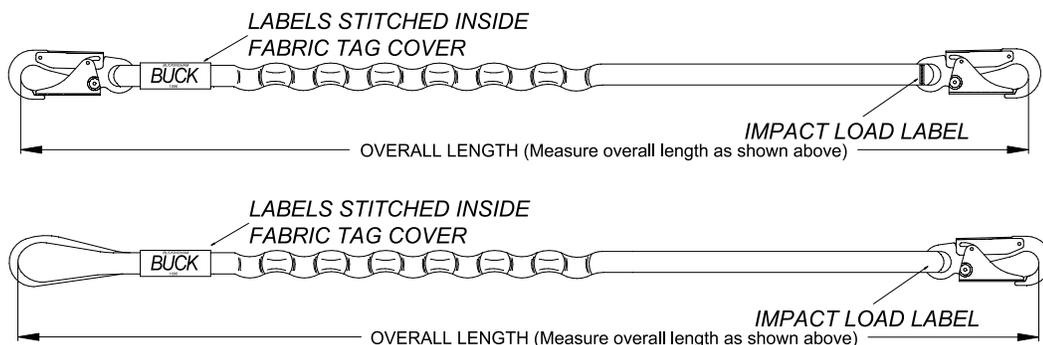
- ◆ Before each use ensure snap hook / carabiner locking mechanism is functioning properly
- ◆ Lubricate lock mechanism and keeper / gate on both sides of snap hook at least weekly or as often as required to maintain smooth operation (no binding) with light weight lubricant such as WD-40®.
- ◆ Never disable locking mechanism of the snap hook/carabiner, punch holes in or alter a connecting device in any way.
- ◆ Ensure there is no pressure on the snap hook locking mechanism sufficient to depress it as this will, due to its length, render it incompatible with currently designed D-rings and make it very susceptible to rollout.
- ◆ Never knot BuckYard. Knots can reduce the strength of the unit up to 50% and reduce the effectiveness of the energy absorption / extension.
- ◆ Never work without independent fall-arrest protection if there is danger of a fall.
- ◆ Product covered under these instructions / warnings should not be resold / redistributed or re-used after use by original user.

**Special Instructions pertaining to Dual Lanyards:** The Dual Lanyard is designed to provide continuous fall protection, by means of one lanyard leg always being connected to an anchor point while your climbing / working position is being changed. Product may vary from that shown (energy absorber, hardware, etc.).

Connect to a new fall arrest anchor point with one lanyard leg, while staying connected to the original fall arrest anchor point with the adjacent lanyard leg. Once connected to the new anchor point disconnect from the original anchor point and repeat this procedure until your desired work position is reached. Note: never attach both legs of the BuckYard dual lanyard to an anchor point that is at the same level.



**Warning:** Dual lanyards must be used in a manner in which the energy absorber pack is not bypassed as this will render it ineffective as an energy absorbing lanyard and in the event of a fall, result in impact forces exceeding OSHA requirements.



*Hardware may vary from that depicted in the illustration.*

### **Cleaning / Storage**

Proper maintenance and storage of your equipment will prolong its useful life and contribute toward its performance. Storage areas should be clean, dry, and free of exposure to corrosive elements, fumes, etc. BuckYards are constructed of web material and should be cleaned with water and mild soap (a dish washing soap that removes grease (i.e. dawn)) and be allowed to dry thoroughly without using excessive heat. Your equipment should be stored and transported so that it does not come into contact with, but not limited to, moisture, ultra violet rays, extreme temperatures, oil, chemical agents or their vapors or other degrading elements. Warnings pertaining to cleaning, storage and transportation should be strictly adhered to. **NOTE:** Ensure proper fit / size of product before use. This product cannot be returned unless it is in new / unused condition.

**OVER**

Warning / Product Identification Labels (Labels shown are Not To Scale)

(Standard product label)

(CSA approved label)

(X4 label)



ANSI Required Labels



Standard BuckYard 48" Maximum Deployment Distance

BuckYard suffixed with 'X12' 60" Maximum Deployment Distance

Impact Load Indicator Label



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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.