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# **SAFETY DIRECT LTD.**

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***Fall Protection Equipment Manufacturer***

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## **Instructions for Dorsal Extensions, Non-Energy & E4 Energy Absorbing**

### **WARNING**

Failure of the user to read and understand all instructions for use of this equipment may result in serious injury or death.

It is recommended that the user complete an approved fall protection program before using the product.

There should be an approved rescue plan in effect on any work site prior to the commencement of working at heights. The rescue plan must have provision to retrieve any worker, suspended as a result of a fall arrest, without delay in order to reduce the effects of suspension trauma.

In the event of a fall arrest and the energy absorber on the dorsal extension deploys, the deployed length of the extension can increase by up to 1.07 m (3.5 ft). The total fall distance should be calculated using this increased deployed length to ensure that there is sufficient clearance to the surface below the worksite. Refer to product label for maximum deployed length of dorsal extension.

## **General Instructions**

All warning labels and instructions must be understood and followed by the user before using the product.

All users must understand the relevant regulations and usage standards for fall protection, pertaining to this product, in the jurisdiction in which it is being used.

Only trained and competent personnel should use these products.

All fall protection equipment must be visually inspected by the worker prior to each use.

All fall protection equipment must be inspected by a competent person on a regular basis (at least annually).

Fall protection equipment must not be altered or modified in any way.

To reduce the possibility of accidental release, a competent person must ensure that all the system components are compatible.

Any equipment exhibiting deterioration, damage or deformation must be removed from service immediately and inspected by a competent person before being returned to service.

All equipment subjected to a fall arrest or fall incident must be removed from service immediately and be tagged for further inspection to determine the disposition of the equipment.

## **Usage Instructions**

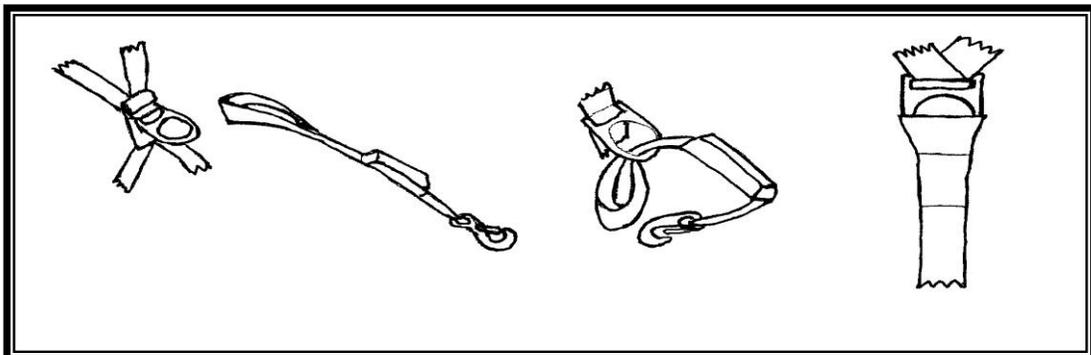
Failure to follow these instructions could result in catastrophic failure of the dorsal extension in the event of a fall arrest situation.

In the event of a fall arrest the suspended worker should be rescued without delay in order to minimize the effects of suspension trauma.

For Fall Arrest applications the locking snap hook adjacent to the Energy Absorber Pack must be attached to the Dorsal (rear) D-ring of an approved full body harness and visual confirmation of the locking of the gate on the snap hook must be obtained.

If the lanyard to be used with a dorsal extension has an energy absorber integral to the lanyard the dorsal extension must not be an energy absorbing type. The use of two energy absorbers in a dorsal extension and lanyard combination is not allowed.

If the dorsal extension has a soft loop connection, for attachment to the harness, it should be installed as shown in the following diagram.



The lanyard should be attached to the D-ring on the dorsal extension, in accordance with the regulations in the jurisdiction in which the equipment is being used.

Wherever possible the anchorage should be chosen so as to be directly above the work site in order to reduce or eliminate the possibility of a swing fall.

When selecting the anchorage ensure that there is sufficient clearance to the surface below to allow for the following:

- 1) Deployment of the energy absorber.
- 2) Stretch of the full body harness.
- 3) Slippage of the Dorsal D-ring on the full body harness.
- 4) Stretch of the anchorage means if applicable.

The length of the lanyard and dorsal extension combination should be the minimum needed to accomplish the task, but should not exceed 1.8 metres (6 feet) unless the anchorage is above the attachment point to the full body harness.

The lanyard should not be modified or altered in any way.

In the event that a lanyard and dorsal extension combination is involved in a fall arrest situation it must be removed from service immediately and discarded.

## **Inspection**

All dorsal extensions should be inspected by the user before each use and should be visually inspected by a competent person, other than the user, on an annual basis or sooner. A record of these inspections should be kept in a log.

When an inspection reveals any defects the dorsal extension must be removed from fall arrest service immediately and be tagged to preclude any further use. The dorsal extension should not be returned to service until it has been reworked or repaired by the manufacturer.

The dorsal extension should be removed from service immediately if an inspection reveals any of the following:

- a) that the dorsal extension has been subjected to fall arrest service and the energy absorber has been partially deployed.
- b) there is evidence of any corrosion or deformation of the hardware connectors and components, including cracks, sharp edges, chemical attack, excessive heat exposure or alteration in any way.
- c) there is any evidence of fraying or cutting of the web in the soft loop attachment point to the full body harness.
- d) function tests show that the gates on carabiners and snap hooks do not lock automatically.
- e) if the original labeling on the dorsal extension has been removed or is illegible.
- f) the dorsal extension webbing has become adulterated with paint, bitumen, solvent or other chemical reagent.
- g) the material used to manufacture the dorsal extension is compromised, including but not limited to any spliced terminations or stitch patterns, cuts, tears, abrasion, burns, knots, kinks or excessive wear.

Any dorsal extension removed from service and awaiting inspection should be tagged to indicate that it should not be used until it has been inspected and approved for further fall protection service.

Only persons or organizations authorized in writing by Safety Direct Ltd. shall make repairs to dorsal extensions.

## **Care and maintenance**

Maintenance of the dorsal extension should be carried out in accordance with the instructions provided by Safety Direct Ltd.

All dorsal extensions should be stored in a clean, dry environment, with limited exposure to the following:

- 1 sunlight and UV radiation.
- 2 excessive heat.
- 3 harmful fumes.
- 4 corrosive chemicals or environments.

If necessary the dorsal extension can be cleaned by the use of a mild soap solution and warm water and a sponge. The use of harsh detergents or chemical solvents is not recommended. After washing, rinse the dorsal extension in clean water, and hang it to air dry away from direct heat and then carry out a further inspection. After washing, any hardware should be function tested and a light lubricating oil can be applied if necessary.

## **Product Design Parameters.**

### **Energy Absorbing**

Average Arresting Force ( $F_{avg}$ ) as per CSA Z259.11-05 : 2.65 kN.

Maximum Elongation ( $X_{max}$ ) as per CSA Z259.11-05 : 1.24 m.

## **WARNINGS**

**The following situations should be avoided when using dorsal extensions in combination with lanyards:**

- 1) **Snap hooks should not be attached to each other directly.**
- 2) **Only one snap hook should be attached to each D-ring.**
- 3) **Only one energy absorber is allowed in the dorsal extension and lanyard combination.**
- 4) **Connecting components attached together must be compatible in order to reduce or eliminate the possibility of snap hook “roll out”.**
- 5) **The anchorage point should be directly overhead wherever possible to eliminate any swing fall situation.**
- 6) **Maximum free fall should be limited to less than 1.8 m (6 ft.).**
- 7) **Dorsal extensions are rated for 1 person, minimum total mass of worker 45 kg (100 lb), maximum total mass 115 kg (254 lb). For workers with a total mass exceeding 115 kg please contact Safety Direct Ltd.**

**In case of any issues or interpretations arising out of the use of these products or these instructions please contact Safety Direct Ltd. for clarification.**

## **Fall Protection You Can Live With! ®**

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