



USER INSTRUCTIONS

Introduction

Tensor energy absorbing lanyards are designed for use as part of a personal fall protection system. They are compliant with EN354, EN355 and ANSI Z359.1 and all connectors used are compliant with EN362 (ANSI Z359.12).

Tensor lanyards are either 'single' or 'twin': the former has one leg and is used for general height safety; the latter has two legs and is used where a 'double lanyard' technique is required, such as when climbing ladders or moving along a series of discrete anchor points. See Figure 1.

Tensor Integral lanyards additionally include suspension syncope relief loops, which allow a worker who is suspended after a fall arrest, to redistribute their suspended weight to their feet, thus extending the amount of time they can remain safely suspended.

All Tensor lanyards are suitable for use in fall arrest and work restraint systems. In the event of a high load being applied, such as during a fall arrest, the energy absorbing element will deploy, reducing the forces generated in the lanyard. For lower level loads, such as for work restraint, the energy absorbers will not deploy.

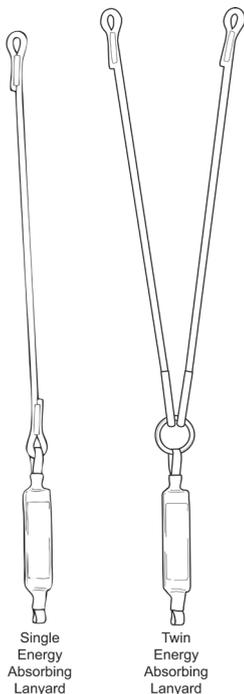


fig. 1

There are a wide range of Tensor lanyards and their product codes are as follows:

Tensor Single Lanyard	L1 000 X
Tensor Twin Lanyard	L2 000 X
Tensor Integral Single Lanyard	L1 000 X T
Tensor Integral Twin Lanyard	L2 000 X T

Where '000' is the overall length of the lanyard in cm and 'X' is a code for the type of connectors used.

Inspection & Maintenance

Refer to notes on reverse of this document. This product is made with polyamide and polyester fibers.

Before each use:

- Check condition of textile elements for excessive wear or damage. If any defect is deeper than 1mm DO NOT USE and withdraw from service immediately and do not re-use until it has been examined by a competent person.
- Check the correct operation of the connector gate and lock. If any defect is present withdraw from service immediately and do not re-use until it has been examined by a competent person.

Use

Connect the end of the lanyard with the energy absorber to a suitable attachment point on a harness. For fall arrest the harness should be compliant with EN361 and the attachment points will be marked with an 'A'. Where a harness attachment point is in two parts on a harness, both parts of the attachment point must be used.

The other end of the lanyard should be connected only to a suitable anchorage point, preferably above the position of the worker. For fall arrest, the anchorage must comply with EN795.

Warnings

- Always attach energy absorber end of lanyard to the harness.
- Always use a suitable anchorage point, for fall arrest compliant with EN795.
- Do not 'choke' the lanyard.
- Do not cross-load connectors or load gates.
- Do not connect unused leg of twin lanyard to any strong part of harness.
- Always ensure there is sufficient fall clearance below worker, 7.0m minimum is recommended for 2.0m lanyards.
- Rescue: refer to ANSI/ASSE Z359.1 and ANSI/ASSE Z359.4 and applicable regulations governing safe rescue operations and occupational safety.
- Never extend the length of the lanyard.
- The total length of a lanyard system should never exceed 2.0m

Use connectors to attach directly to the anchorage. Do not 'choke' the lanyard around an anchorage as this may cross load the connector. It is acceptable to connect back to the ring/loop at the end of the energy absorber which is furthest from the workers harness. See Figure 2.

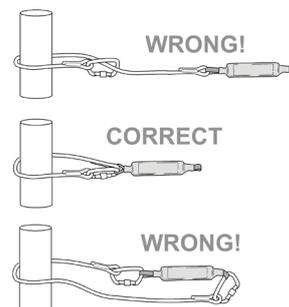


fig. 2

Ensure the lanyard does not rub against any corners, edges or abrasive surfaces as this will accelerate wear of the lanyard. See Figure 3.

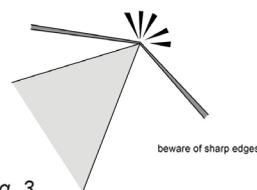


fig. 3

Connectors should only be loaded along their major axis and always be used with the gate closed and fully locked. They should be free to move without; external stress, constraint or support. Avoid loading across their gates and avoid cross-loading. Their strength is greatly reduced otherwise.

For Integral lanyards, in the event of a fall arrest, the suspension loop should fall free when the energy absorber deploys. If it does not, simply pull on it to release it. Adjust length of loop to worker's height and step into loop to transfer weight to feet.

For twin lanyards ensure the unused leg is never connected to a strong part of the harness. It should be connected to the central ring of the lanyard or to a sacrificial parking point on the harness. If this is not done, the unused leg may become part of the load path in a fall arrest and by-pass the energy absorber. This in turn would lead to very high forces being generated within the lanyard during the fall arrest, which may lead to catastrophic failure of the system.

During a fall arrest the energy absorber may deploy by up to 1.5m. It is essential that there is sufficient fall clearance beneath the worker's position to allow for the fall to be arrested before the falling worker strikes the ground or anything else below them.

An example of the fall clearance required below an anchor point is given below and is shown schematically in Figure 4.

It is recommended that generally a fall clearance of 7.0m is used for 2m lanyards.

Lanyard Length	2.0m	1.25m
Energy Absorber deployment	1.5m	1.0m
Length of body & harness	2.0m	2.0m
Safety distance	1.0m	1.0m
Fall Clearance	6.5m	5.25m

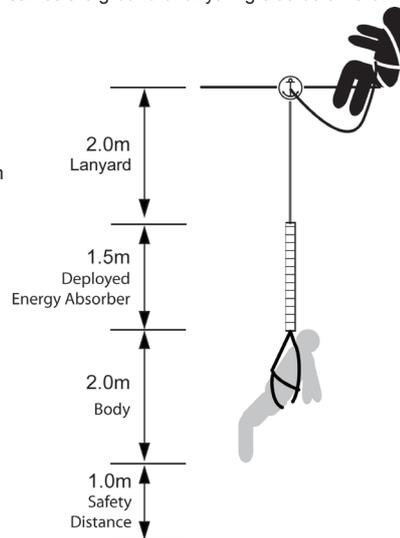


fig. 4

Be aware of any obstructions, permanent or temporary within the fall clearance which may cause injury during a fall. Also be aware of any lateral swing that may occur during a fall arrest and any obstructions in the path of this type of fall.

For fall arrest always ensure a rescue plan is in place.

