



Trusted Quality Fall Protection

## USER INSTRUCTION MANUAL

Model numbers: See Table 2

Please read this User Instruction Manual carefully before installing and using this product.

# PRO SERIES ENERGY ABSORBING LANYARDS

### LANYARDS WITH INTEGRAL ENERGY ABSORBERS AND ENERGY ABSORBER COMPONENTS USED IN PERSONAL FALL ARREST SYSTEMS

This manual is intended to meet the Manufacturer's Instructions as required by ANSI Z359.13 and CSA Z259.11, and should be used as part of an employee training program as required by OSHA.

**DANGER:** This product is part of a personal fall arrest, climbing, or rescue system. Working at height creates inherent and unavoidable risks which can result in serious injury or death. The user must follow the manufacturer's instructions for each component of the system. These instructions must be provided to the user of this equipment. The user must read and understand these instructions before using this equipment. Manufacturer's instructions must be followed for proper use and maintenance of this equipment. Alterations or misuse of this product or failure to follow instructions may result in serious injury or death.

**IMPORTANT:** If you have questions on the use, care, or suitability of this equipment for your application, contact Capital Safety.

**IMPORTANT:** Before using this equipment, record the product identification information from the ID label in the "Inspection and Maintenance Log" in this instruction document.

#### 1.0 APPLICATIONS

**1.1 PURPOSE:** Energy absorbing lanyards are to be used as components in Personal Fall Protection Systems designed to safely arrest a fall. Energy absorbing lanyards are used in the following applications:

**Fall Arrest:** Fall arrest systems safely stop the user in a free fall from a height. The user can then self-rescue or be rescued. Personal fall arrest systems typically include a full body harness and an energy absorbing lanyard. ANSI models: Maximum arresting force must not exceed 1,800 lbs (8 kN). CSA models: Maximum arresting force must not exceed 4 kN (900 lbs) for Class E4 energy absorbing lanyards or 6 kN (1,300 lbs) for Class E6 energy absorbing lanyards.

**Restraint:** Restraint systems prevent the user from reaching a fall hazard (example: leading edge roof work).

**Rescue:** The energy absorbing lanyard is used as a component of a back-up fall protection system during rescue or as part of the primary rescue system.

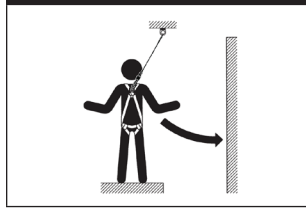
#### 1.2 LIMITATIONS AND REQUIREMENTS:

**WARNING:** Always consider the following application limitations and requirements before using this equipment.

- A. PROTECTA ENERGY ABSORBING LANYARD CAPACITY:** ANSI models are designed for use by persons with a combined weight (clothing, tools, etc.) of no more than 310 lbs (141 kg). CSA Class E4 Energy Absorbing Lanyard models are designed for use by persons with a combined weight (clothing, tools, etc.) of at least 45 kg (100 lbs) but not more than 115 kg (254 lbs). CSA Class E6 Energy Absorbing Lanyards are designed for use by persons with a combined weight (clothing, tools, etc.) of at least 90 kg (200 lbs) but not more than 175 kg (386 lbs). Make sure all of the components in your system are rated to a capacity appropriate to your application.
- B. FREE FALL:** Personal fall arrest systems incorporating this equipment must be rigged to limit the free fall to 6 feet (1.8 m) or less when using PROTECTA energy absorbing lanyard models.
- C. FALL CLEARANCE:** There must be sufficient clearance below the user to arrest a fall before the user strikes the ground or other obstruction. The clearance required depends on deployment distance, energy absorbing lanyard length, movement of harness attachment element, free fall distance, elevation of anchorage and worker height. Figure 2 illustrates fall clearance calculation for an energy absorbing lanyard. Figure 3 indicates the deployment distance of the personal energy absorber according to the user weight and free fall distance.
- D. SWING FALLS:** Swing falls occur when the anchorage point is not directly above the point where a fall occurs (see Figure 1). Minimize swing falls by working as close to and directly below the anchorage point as possible. Do not permit a swing fall if injury could occur.

**WARNING:** The force of striking an object in a swing fall may cause serious injury or death.

Figure 1 – Swing Falls



- E. ENVIRONMENTAL HAZARDS:** Use of this equipment in areas with environmental hazards may require additional precautions to prevent injury to the user or damage to the equipment. Hazards may include, but are not limited to; heat, chemicals, corrosive environments, high voltage power lines, gases, moving machinery, and sharp edges.
- F. LANYARDS FOR HIGH TEMPERATURE ENVIRONMENTS:** Lanyards with Kevlar webbing are designed for use in high temperature environments, with limitations: Kevlar webbing begins to char at 800° to 900° Fahrenheit. Kevlar webbing can withstand limited contact exposure to temperatures up to 1,000° F. Polyester webbing loses strength at 300° to 400° F. PVC coating on hardware has a melting point of approximately 350° F.
- G. TRAINING:** It is the responsibility of the user and the purchaser of this equipment to assure that they are familiar with these instructions, trained in the correct care and use of, and are aware of the operating characteristics, application limits, and the consequences of improper use of this equipment.

Figure 2 – Fall Clearance

RD = LL + DD + HH + C	
RD	Required Fall Clearance Distance
LL	Length of Lanyard (Specified on labeling)
DD	ANSI Models Deployment Distance = 4 ft (1.2 m). CSA Models Deployment Distance = 1.2 m (3.9 ft) with the use of Class E4 Energy Absorbing Lanyards or 1.75 m (5.7 ft) with the use of Class E6 Energy Absorbing Lanyards.
HH	Height of Suspended Worker
C	Safety Factor = 1.5 ft (0.5 m) (Factors in D-Ring Slide and Harness Stretch.)

**Example:** Assuming a 6 ft (1.8 m) tall user with a typical 6 ft (1.8 m) lanyard with 6 ft (1.8 m) Free Fall, Fall Clearance calculation would be as follows:

$$RD = LL + DD + HH + C$$

$$RD = 6 \text{ ft} + 4 \text{ ft} + 6 \text{ ft} + 1.5 \text{ ft} = 17.5 \text{ ft}$$

$$RD = 1.8 \text{ m} + 1.2 \text{ m} + 1.8 \text{ m} + 0.5 \text{ m} = 5.3 \text{ m}$$

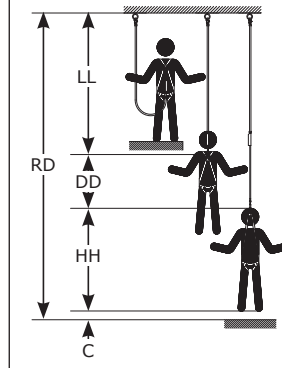
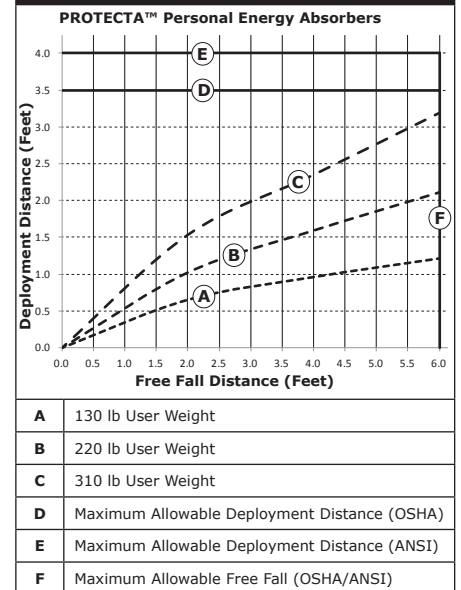


Figure 3 – Deployment Distance vs. Free Fall Distance (ANSI Models Only)



- 1.3 APPLICABLE STANDARDS:** Refer to national standards including the ANSI Z359 family of standards on fall protection, ANSI A10.32, the CSA Z259 family of standards on fall protection, and applicable local, state, and federal (OSHA) requirements governing occupational safety for more information on Energy Absorbing Lanyards, Energy Absorbers and associated components.
- 1.4 RESCUE PLAN:** When using this equipment, the employer must have a rescue plan and the means at hand to implement the rescue, as well as communicate that plan to users, authorized persons, and rescuers.
- 1.5 INSPECTION BEFORE USE:** The energy absorbing lanyard must be inspected according to procedures in Section 4 of this instruction manual.

#### 2.0 SYSTEM REQUIREMENTS

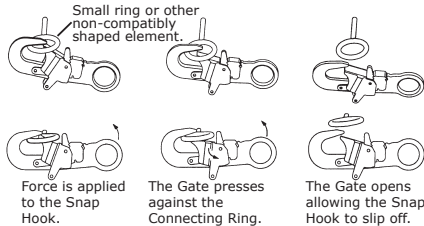
- 2.1 COMPATIBILITY OF COMPONENTS:** PROTECTA equipment is designed for use with Capital Safety approved components and subsystems only. Substitutions or replacements made with non-approved components or subsystems may jeopardize compatibility of equipment and may affect the safety and reliability of the complete system.
- 2.2 COMPATIBILITY OF CONNECTORS:**

**IMPORTANT:** Use only connectors that are suitable to each application and are compatible with connecting elements. Connectors must be compatible with the anchorage or other system components. Connectors must be compatible in size, shape, and strength. Non-compatible connectors may unintentionally disengage (see Figure 4).

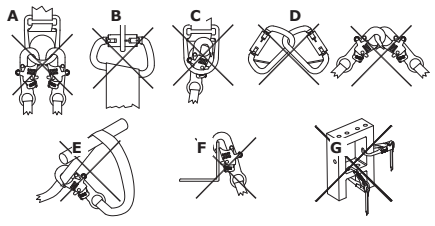
Connectors are considered to be compatible with connecting elements when they have been designed to work together in such a way that their sizes and shapes do not cause their gate mechanisms to inadvertently open regardless of how they become oriented. Contact Capital Safety if you have any questions about compatibility. Self-locking snap hooks and carabiners are required by ANSI Z359.13, CSA Z259.11 and OSHA. Connectors (hooks, carabiners, and D-Rings) must be capable of supporting at least 5,000 lbs. (22.2 kN). Per ANSI Z359.12 and CSA Z259.12, connector gates must be able to withstand a load of 3,600 lbs (16 kN).

**Figure 4 – Unintentional Disengagement**

If the connecting element to which a snap hook (shown) or carabiner attaches is undersized or irregular in shape, a situation could occur where the connecting element applies a force to the gate of the snap hook or carabiner. This force may cause the gate (of either a self-locking or a non-locking snap hook) to open, allowing the snap hook or carabiner to disengage from the connecting point.



**Figure 5 – Inappropriate Connections**



**2.3 MAKING CONNECTIONS:** Capital Safety connectors (snap hooks and carabiners) are designed to be used only as specified in each product's user's instructions. See Figure 5 for inappropriate connections.

**Capital Safety snap hooks and carabiners should not be connected:**

- A. To a D-Ring to which another connector is attached.
- B. In a manner that would result in a load on the gate.

**WARNING:** Large throat snap hooks should not be connected to standard size D-Rings or similar objects which will result in a load on the gate if the hook or D-Ring twists or rotates, unless the snap hook complies with ANSI Z359.12 (if used in Canada, CSA Z259.12) and is equipped with a 3,600 lb (16 kN) gate. Check the marking on your snap hook to verify that it is appropriate for your application.

- C. In a false engagement, where features that protrude from the snap hook or carabiner catch on the anchor, and without visual confirmation seems to be fully engaged to the anchor point.
- D. To each other.
- E. Directly to webbing or rope lanyard or tie-back (unless the manufacturer's instructions for both the lanyard and connector specifically allows such a connection).
- F. To any object which is shaped or dimensioned such that the snap hook or carabiner will not close and lock, or that roll-out could occur.
- G. In a manner that does not allow the connector to align properly while under load (unless using Capital Safety snap hooks that have been specifically designed and tested for these applications). Contact Capital safety for more information.

**CAUTION:** Ensure all connectors are fully closed and locked.

**2.4 WEB LOOP CONNECTIONS:** Some lanyards are designed to choke onto a web loop to provide a compatible connection. To choke the lanyard on a web loop:

**Figure 6 – Web Loop Connection**

1. Insert the lanyard web loop through the web loop or D-Ring on the harness.
2. Insert the appropriate end of the lanyard through the lanyard web loop.
3. Pull the lanyard through the connecting web loop to secure.

**2.5 ANCHORAGE STRENGTH:** Anchorages selected for use with the energy absorbing lanyards must have a strength capable of sustaining the static load requirements of the intended fall protection application:

- A. Fall Arrest: In accordance with ANSI Z359.1, anchorages selected for fall arrest systems shall have a strength capable of sustaining static loads applied in the directions permitted by the system of at least:

1. 5,000 pounds (22.2kN) for non-certified anchorages, or
2. Two times the maximum average arresting force for certified anchorages.

When more than one fall arrest system is attached to an anchorage, the strengths set forth in (1) and (2) above shall be multiplied by the number of systems attached to the anchorage.

**WARNING:** Anchorages must be rigid. Large deformations of the anchorage will affect system performance, and may increase the required fall clearance below the system, which could result in serious injury or death.

From OSHA 1926.500 and 1910.66: Anchorages used for attachment of PFAS shall be independent of any anchorage being used to support or suspend platforms, and capable of supporting at least 5,000 lbs. (22.2 kN) per user attached, or be designed, installed, and used as part of a complete PFAS which maintains a safety factor of at least two, and is supervised by a qualified person.

Anchorages selected for work positioning systems shall have a strength capable of sustaining static loads applied in the directions permitted by the system of at least:

3. 3,000 pounds (13.3kN) for non-certified anchorages, or
4. Two times the foreseeable force for certified anchorages.

When more than one work positioning system is attached to an anchorage, the strengths set forth in (3) and (4) above shall be multiplied by the number of systems attached to the anchorage. Anchorages selected for fall arrest must sustain loads of 3,372 lbs (15 kN) or greater.

**B. RESTRAINT:** Anchorages selected for restraint and travel restraint systems shall have a strength capable of sustaining static loads applied in the directions permitted by the system of at least:

1. 1,000 lbs. (4.5 kN) for non-certified anchorages, or
2. Two times the foreseeable force for certified anchorages. When more than one restraint system is attached to an anchorage, the strength specified above shall be multiplied by the number of systems attached to the anchorage.

**C. RESCUE:** Anchorages selected for rescue systems shall have a strength capable of sustaining static loads applied in the directions permitted by the system of at least:

1. 3,000 pounds (13.3kN) for non-certified anchorages, or
2. Five times the foreseeable force for certified anchorages.

**3.0 OPERATION AND USE**

**WARNING:** Do not alter or intentionally misuse this equipment. Consult Capital Safety when using this equipment in combination with components or subsystems other than those described in this manual. Some subsystem and component combinations may interfere with the operation of this equipment. Use caution when using this equipment around moving machinery, electrical hazards, chemical hazards, sharp edges, or overhead materials that may fall onto the lanyard. Do not loop the lanyard around small structural members. Failure to heed this warning may result in equipment malfunction, serious injury, or death.

**WARNING:** Consult your doctor if there is reason to doubt your fitness to safely absorb the shock from a fall arrest. Age and fitness seriously affect a worker's ability to withstand falls. Pregnant women or minors must not use any Capital Safety full body harness.

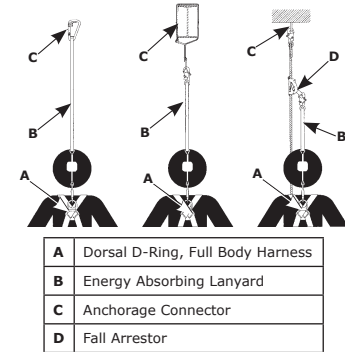
**3.1 BEFORE EACH USE** of this equipment, inspect it according to "Inspection Checklist" (Table 1).  
**3.2 PLAN** your system before use. Consider all factors that will affect your safety during use of this equipment. The following list gives important points to consider when planning your system:

- A. ANCHORAGE:** Select an anchorage that meets the requirements specified in "Limitations and Requirements".
  - B. SHARP EDGES:** Avoid working where system components may be in contact with, or abrade against, unprotected sharp edges.
  - C. AFTER A FALL:** Components which have been subjected to the forces of arresting a fall must be removed from service and destroyed. See the "Inspection Checklist" (Table 1).
  - D. RESCUE:** The employer must have a rescue plan when using this equipment. The employer must have the ability to perform a rescue quickly and safely.
- 3.3 CONNECTING TO BODY SUPPORT AND ANCHORAGE OR ANCHORAGE CONNECTOR:** See Figure 7. Energy absorbing lanyards should be connected to the body support first and then connected to the rest of the system. Always connect the energy absorber end of the lanyard to the

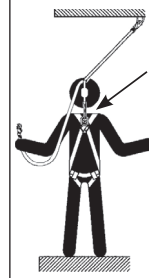
D-Ring on the back between the shoulders (dorsal D-Ring) on a full body harness. Capital Safety does not recommend using a body belt for fall arrest applications. If using a body belt, connect the energy absorbing end of the lanyard to the D-Ring and position the belt so the D-Ring is located on the back side of the body.

Connect the lanyard end to the anchorage or anchorage connector. Some anchorage connector devices may be supplied with a permanently attached energy absorber. Use of an additional energy absorber or energy absorbing lanyard with this lanyard system is not recommended.

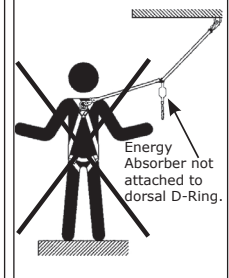
**Figure 7 – Anchorage Connection Examples**



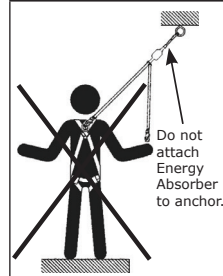
**Figure 8 – Correct Attachment**



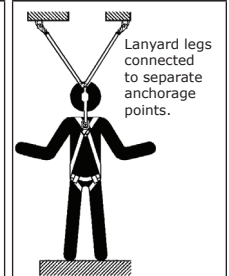
**Figure 9 – Incorrect Attachment**



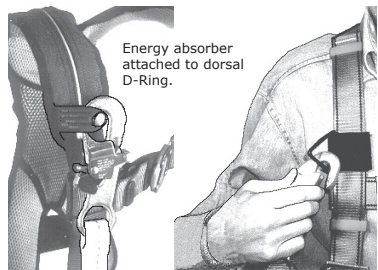
**Figure 10 – Incorrect Attachment**



**Figure 11 – Acceptable Attachment**



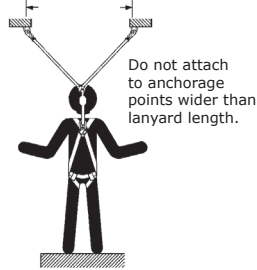
**Figure 12 – Acceptable Designed Retainers**



**3.4 A. 100% TIE-OFF LANYARD CONSIDERATIONS:** Commonly known as 100% tie-off, "Y" type, twin leg, or double lanyards; these energy absorbing lanyards can be used to provide continuous fall protection while ascending, descending, or moving laterally. With one lanyard leg attached, the worker can move to a new location, attach unused lanyard leg, and disconnect attached leg. This procedure is repeated until a new location is reached. Other practices that must be followed in order to use a 100% tie-off type lanyard safely include: The energy absorber portion of the lanyard must be connected to the dorsal D-Ring only.

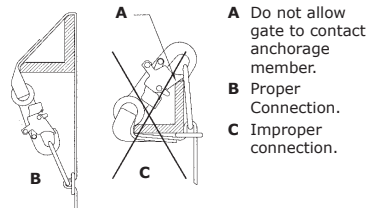
Use only the snap hook (or other connector provided) to attach the energy absorber portion directly to the harness dorsal D-Ring. See Figures 8 and 9. Do not connect the energy absorber to the anchorage. See Figure 10. Do not attach the unused leg of the lanyard back to the harness at any location unless a specially designed lanyard retainer is provided for this purpose. See Figure 12. Connection of both lanyard legs to separate anchorage points is acceptable. See Figure 11. When leapfrogging from one anchorage point to the next (such as traversing a horizontal or vertical structure) do not connect to anchorage points that are further apart than the lanyard length (as marked on the lanyard label). See Figure 13. Never connect more than one person to a "Y" type lanyard at a time. Do not allow any lanyard to pass under arms or legs during use.

**Figure 13 – Maximum Lanyard Reach**



Attaching a Tie-Back Lanyard: See Figure 14. Place the tie-back lanyard over the anchoring structure. Ensure the lanyard is not twisted. Adjust the floating D-Ring so it hangs below the anchoring structure. Attach the lanyard end hook to the floating D-Ring. Ensure the lanyard is cinched tight around the anchorage during use.

**Figure 14 – Attaching Tie-Back**



- A** Do not allow gate to contact anchorage member.
- B** Proper Connection.
- C** Improper connection.

- B. CONNECTING TO THE BODY SUPPORT:** Connect the energy absorbing lanyard or energy absorber to the D-Ring on the back between the shoulders (dorsal D-Ring) on a full body harness. Connect so the energy absorber portion of the lanyard is on the body support side. Capital Safety does not recommend using a body belt for fall arrest applications. If using a body belt, connect the energy absorbing lanyard or energy absorber to the D-Ring and position the belt so the D-Ring is located on the back side of the body.
  - C. ATTACHING A LANYARD WITH WEB LOOPS:** See Section 2.4.
  - D. CONNECTING TO A ROPE GRAB (FALL ARRESTOR):** It is recommended the lanyard end (vs. the energy absorber end) be attached to the rope grab. This recommendation is made to reduce possible interference with the operation of the rope grab by the energy absorber "pack." Attaching a component style energy absorber to a rope grab is not recommended, with the exception of a "direct-coupling" between a rope grab and a harness. Some rope grabs may be supplied with a permanently attached energy absorbing lanyard. For these cases, use of an additional energy absorber connected between the rope grab and the body support is not recommended. In some cases it may be permissible to couple an energy absorber component between the anchorage (or anchorage connector) and the rope grab lifeline. In all cases, ensure the length of the energy absorber or energy absorbing lanyard does not exceed the rope grab manufacturer's recommended maximum connection length (3 feet [.9 m] maximum per ANSI Z359.1; .8 m [30 in] maximum per CSA Z259.2.5-12). Consult the manufacturer's instructions provided with the Rope Grab for further details.
  - E. CONNECTING TO SELF RETRACTING LIFELINE:** Capital Safety does not recommend connecting an energy absorbing lanyard or energy absorber component to a self retracting lifeline. Special applications do exist where it may be permissible. Contact Capital Safety if considering connecting an energy absorbing lanyard to a self retracting lifeline.
- 3.5** After use, return the lanyard for cleaning or storage as described in section 5.0.

**4.0 INSPECTION**

- 4.1 INSPECTION FREQUENCY:** The Energy Absorbing Lanyard shall be inspected by the user before each use and, additionally, by a competent person<sup>1</sup> other than the user at intervals of no more than one year<sup>2</sup>. Inspection procedures are described in the "Inspection Checklist" (Table 1). Results of each Competent Person inspection should be recorded on copies of the "Inspection and Maintenance Log."
- 4.2 UNSAFE OR DEFECTIVE CONDITIONS:** If inspection reveals an unsafe or defective condition, remove the lanyard from service and destroy. Lanyards are not repairable.
- 4.3 PRODUCT LIFE:** The functional life of the lanyard is determined by work conditions and maintenance. As long as the lanyard passes inspection criteria, it may remain in service.

**WARNING:** Failure to properly inspect the lanyard could result in product failure and serious injury or death.

- 2 Competent Person:** One who is capable of identifying existing and predictable hazards in the surroundings or working conditions which are unsanitary, hazardous, or dangerous to employees, and who has authorization to take prompt corrective measures to eliminate them.
- 3 Inspection Frequency:** Extreme working conditions (harsh environments, prolonged use, etc.) may require increasing the frequency of competent person.

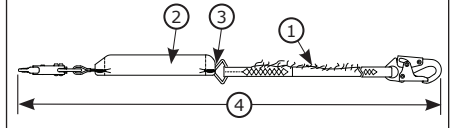
**Table 1 – Inspection Checklist**

Inspection: (See Section 4.1 for Inspection Frequency)	Pass	Fail
<b>Lanyard Hardware:</b> Inspect energy absorbing lanyard or energy absorber component hardware (snap hooks, adjusters, swages, thimbles, etc.). These items must not be damaged, broken, distorted, or have any sharp edges, burrs, cracks, worn parts, or corrosion. Ensure the connecting hooks work properly. Hook gates must move freely and lock upon closing. Ensure adjusters (if present) work properly.	<input type="checkbox"/>	<input type="checkbox"/>
<b>Webbing &amp; Stitching:</b> The webbing material must be free of frayed, cut, or broken fibers. Check for tears, abrasions, mold, burns, or discoloration, etc. The webbing must be free of knots, excessive soiling, heavy paint buildup, and rust staining. Check for chemical or heat damage indicated by brown, discolored, or brittle areas. Check for ultraviolet damage indicated by discoloration and the presence of splinters or slivers on the webbing surface. All of the above factors are known to reduce webbing strength. Inspect stitching for pulled or cut stitches. Broken stitches may be an indication the energy absorbing lanyard or energy absorber component has been impact loaded and must be removed from service.	<input type="checkbox"/>	<input type="checkbox"/>
<b>Wire Rope:</b> Inspect entire length of the wire rope. Always wear protective gloves when inspecting wire rope. Inspect for broken wires by passing cable through gloved hands, flexing it every few inches to expose breaks. Broken wires can be removed by bending the wire back and forth parallel to the rope length. Do not attempt to pull wires out of rope. Remove the energy absorbing lanyard from service immediately and destroy if there are six or more randomly distributed broken wires in one lay, or three or more broken wires in one strand in one lay. A "lay" of wire rope is the length of wire rope that it takes for a strand (the larger groups of wires) to complete one revolution or twist along the rope. Remove the energy absorbing lanyard from service immediately and destroy if there are any broken wires within 1 inch of the metal compression sleeves (swages) at either end of the assembly. The wire rope should be free of corrosion.	<input type="checkbox"/>	<input type="checkbox"/>
<b>Energy Absorber &amp; Impact Indication:</b> Inspect the energy absorber to determine if it has been activated. There should be no evidence of elongation. Ensure energy absorber cover is secure and not torn or damaged. On the PRO Stretch™ Lanyard models, the lanyard webbing will tear out to reveal the warning on the impact indicator label.	<input type="checkbox"/>	<input type="checkbox"/>
<b>Labels:</b> All labels should be present and fully legible (see Section 7 'Labeling').	<input type="checkbox"/>	<input type="checkbox"/>
<b>System &amp; Subsystem Components:</b> Inspect each system component or subsystem according to manufacturer's instructions and confirm that it can continue to be used.	<input type="checkbox"/>	<input type="checkbox"/>

**Figure 15 – Impact Indicators**

The following items indicate the Energy Absorber has been subjected to impact loading and has been activated:

1. Torn webbing.
2. Torn or broken cover.
3. Open end or ripped out stitching.
4. Measured length is more than 15 cm (6 in.) longer than the length marked on the label.



**5.0 MAINTENANCE, SERVICING, STORAGE**

- 5.1** Clean lanyard with water and a mild detergent solution. Wipe off hardware with a clean, dry cloth, and hang to air dry. Do not force dry with heat. An excessive buildup of dirt, paint, etc., may prevent the lanyard from working properly, and in severe cases degrade the webbing or rope to a point where it has become weakened and should be removed from service. If you have any questions concerning the condition or cleaning of your lanyard, doubts about putting it into service or require more information, contact Capital Safety.
- 5.2** Additional maintenance and servicing procedures (replacement parts) must be completed by a factory authorized service center. Authorization must be in writing. Do not disassemble the unit. See Section 4.2 for inspection frequency.
- 5.3** Store the lanyard in a cool, dry, clean environment out of direct sunlight. Avoid areas where chemical vapors may exist. Thoroughly inspect the lanyard or energy absorber component after extended storage.

**6.0 MODELS AND SPECIFICATIONS**

**Table 2 - PROTECTA Lanyard Models Covered By This Instruction\***

1340128	1340185	1360128C
1340128C	1340185C	1360129C
1340129	1340186C	1360131C
1340129C	1340187	1360185C
1340131C	1340187C	1360186C
1340132C	1340188C	1360187C

\* Additional model numbers may appear on the next printing of these instructions.

\* CSA approved models are identified by a 'C' at the end of the model number.

**IMPORTANT:** All systems, sub-systems and components marked with ANSI have been tested and qualified/verified in an ISO 17025 accredited lab per ANSI Z359.7.

<b>Materials</b>	PROTECTA energy absorbing lanyards may be constructed of one or a combination of the following materials:
<b>Lanyard Leg</b>	1-in. polyester web, 1 in. and 1 3/4-in. Kevlar® web, 1/2-in. diameter nylon rope, 1 3/8-in. tubular polyester web, 1 15/16-in. tubular polyester web, 1/4-in. coated galvanized or stainless steel cable.
<b>Connectors</b>	Forged steel, zinc/nickel/chromium plated, 1-in. nylon web loops.
<b>Shock Absorber</b>	1 3/4-in. nylon or polyester web, 1-in. polyester web.
<b>Performance (ANSI/OSHA Models)</b>	Maximum Elongation: 48 inches (1.2 m) OSHA Deceleration Distance: 42 inches (1.1 m) Maximum Arrest Force: 1800 lbs. Maximum Average Arrest Force: 900 lbs. Maximum Free Fall: 6 ft. Capacity: 130-310 lbs.
<b>Performance (CSA E4 Models)</b>	Maximum Elongation: 1.2 m (3.9 ft.) Maximum Arresting Force: 4.0 kN (900 lbs.) Maximum Average Arrest Force: 3.0 kN (684 lbs.) Maximum Free Fall: 1.8 m (5.9 ft.) Capacity: 45 kg (100 lbs.) – 115 kg (254 lbs.)
<b>Performance (CSA E6 Models)</b>	Maximum Elongation: 1.75 m (5.7 ft.) Maximum Arresting Force: 6.0 kN (1350 lbs.) Maximum Average Arrest Force: 3.8 kN (864 lbs.) Maximum Free Fall: 1.8 m (5.9 ft.) Capacity: 90 kg (200 lbs.) – 175 kg (386 lbs.)
Contact Capital Safety for information concerning fall protection system design.	

**7.0 LABELS**

Labels must be securely attached to the lanyard and must be fully legible. Label types A and B are located under lanyard cover D on all lanyard models. Pull back the cover to view the labels.

Type C labels are attached to all twin leg lanyard models.

**All ANSI Models:**

**ATTENTION: THIS END OF ENERGY ABSORBING DEVICE IS THE FULL ARREST ATTACHMENT POINT OF HARNESSES.**

**WARNING:** Manufacturer's instructions must be read and understood prior to use. Instructions support with this product or area of attachment must be followed. Avoid contact with sharp and abrasive edges. Make only compatible connections. No flame or heat exposure. Do not remove the shock absorber to avoid markings and instructions could result in a marked failure or death. Any end user who does not read and understand the user manual should not be used after each marking.

The product complies with standards as marked below: A=ANSI Z590.13 E=CSHA C=ANSI A10.32  
 F=ASTM F887 G=ANSI Z590.1 F=ANSI Z590.4 G=

SERIAL: \_\_\_\_\_ Mfrd./ymrcd: \_\_\_\_\_ Lot: \_\_\_\_\_ Model No.: \_\_\_\_\_ Length: \_\_\_\_\_ Standards: \_\_\_\_\_

www.capitalsafety.com  
 Ph: (800) 328-6146

Maximum elongation: 48 in.  
 CSMA standard: 1800 lbs.  
 Maximum arrest force: 1800 lbs.  
 Maximum free fall: 6 ft.  
 Capacity: 150 lbs.  
 Material: Polyester

Warning: Maximum User Weight 130-310 lbs.  
**6ft. 900 lbs.**  
 Maximum Free Fall  
 Average Arresting Force  
 Forces may increase when cold and/or wet  
**Read Instructions Before Use**

**All CSA Models:**

**ATTENTION: THIS END OF ENERGY ABSORBING DEVICE IS THE FULL ARREST ATTACHMENT POINT OF HARNESSES.**

**WARNING:** Manufacturer's instructions must be read and understood prior to use. Instructions support with this product or area of attachment must be followed. Avoid contact with sharp and abrasive edges. Make only compatible connections. No flame or heat exposure. Do not remove the shock absorber to avoid markings and instructions could result in a marked failure or death. Any end user who does not read and understand the user manual should not be used after each marking.

The product complies with standards as marked below: A=ANSI Z590.13 E=CSHA C=ANSI A10.32  
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SERIAL: \_\_\_\_\_ Mfrd./ymrcd: \_\_\_\_\_ Lot: \_\_\_\_\_ Model No.: \_\_\_\_\_ Length: \_\_\_\_\_ Standards: \_\_\_\_\_

www.capitalsafety.com  
 Ph: (800) 328-6146

Maximum elongation: 48 in.  
 CSMA standard: 1800 lbs.  
 Maximum arrest force: 1800 lbs.  
 Maximum free fall: 6 ft.  
 Capacity: 150 lbs.  
 Material: Polyester

**All Twin Leg Models:**

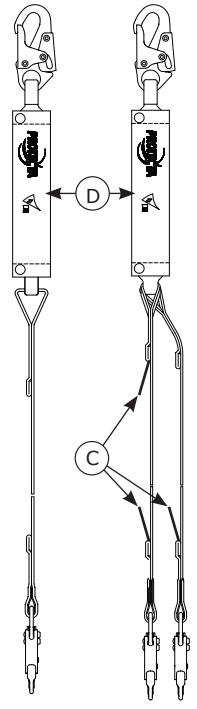
Warning: Attach unused leg of y-lanyard to the lanyard keeper of the harness.

**WARNING**

Always attach energy absorber portion of lanyard to harness dorsal D-ring. Do not allow lanyard to pass under arms or legs. Do not attach two users to this product. See instructions for more information. Failure to heed instructions and warnings may result in serious injury or death. Do not remove this label.

**AVERTISSEMENT**

Toujours attacher le partie amortisseur d'énergie de la longe à l'anneau dorsal de l'homme. Ne pas laisser la longe passer sous les bras ou les jambes. Ne pas attacher deux utilisateurs à cette longe. Voir les instructions pour de plus amples renseignements. Ne pas négliger les instructions et avertissements peut entraîner de graves blessures ou la mort. Ne pas enlever cette étiquette.



**LIMITED LIFETIME WARRANTY**

**Warranty to End User:** D B Industries, Inc., dba CAPITAL SAFETY USA ("CAPITAL SAFETY") warrants to the original end user ("End User") that its products are free from defects in materials and workmanship under normal use and service. This warranty extends for the lifetime of the product from the date the product is purchased by the End User, in new and unused condition, from a CAPITAL SAFETY authorized distributor. CAPITAL SAFETY'S entire liability to End User and End User's exclusive remedy under this warranty is limited to the repair or replacement in kind of any defective product within its lifetime (as CAPITAL SAFETY in its sole discretion determines and deems appropriate). No oral or written information or advice given by CAPITAL SAFETY, its distributors, directors, officers, agents or employees shall create any different or additional warranties or in any way increase the scope of this warranty. CAPITAL SAFETY will not accept liability for defects that are the result of product abuse, misuse, alteration or modification, or for defects that are due to a failure to install, maintain, or use the product in accordance with the manufacturer's instructions.

CAPITAL SAFETY'S WARRANTY APPLIES ONLY TO THE END USER. THIS WARRANTY IS THE ONLY WARRANTY APPLICABLE TO OUR PRODUCTS AND IS IN LIEU OF ALL OTHER WARRANTIES AND LIABILITIES, EXPRESSED OR IMPLIED. CAPITAL SAFETY EXPRESSLY EXCLUDES AND DISCLAIMS ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, AND SHALL NOT BE LIABLE FOR INCIDENTAL, PUNITIVE OR CONSEQUENTIAL DAMAGES OF ANY NATURE, INCLUDING WITHOUT LIMITATION, LOST PROFITS, REVENUES, OR PRODUCTIVITY, OR FOR BODILY INJURY OR DEATH OR LOSS OR DAMAGE TO PROPERTY, UNDER ANY THEORY OF LIABILITY, INCLUDING WITHOUT LIMITATION, CONTRACT, WARRANTY, STRICT LIABILITY, TORT (INCLUDING NEGLIGENCE) OR OTHER LEGAL OR EQUITABLE THEORY.

**INSPECTION AND MAINTENANCE LOG**

<b>SERIAL NUMBER:</b>			
<b>MODEL NUMBER:</b>			
<b>DATE PURCHASED:</b>		<b>DATE OF FIRST USE:</b>	

INSPECTION DATE	INSPECTION ITEMS NOTED	CORRECTIVE ACTION	MAINTENANCE PERFORMED
Approved By:			
Approved By:			
Approved By:			
Approved By:			
Approved By:			
Approved By:			
Approved By:			
Approved By:			
Approved By:			
Approved By:			



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 Toll-Free: 800.387.7484  
 Fax: 888.387.7484  
 info.ca@capitalsafety.com

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