Fall Protection

AS 1891.5:2020
Lic: BMP 750971

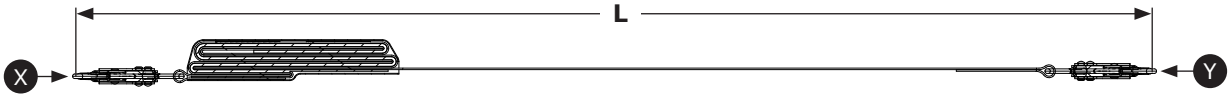
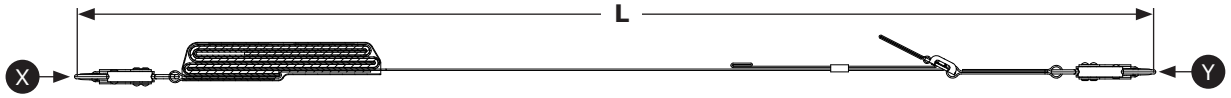
PRODUCT CERTIFICATION
BSI Certified Product

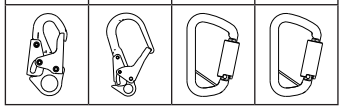
BSI - Head Office
Suite 1, Level 1, 54 Waterloo Road
Macquarie Park, NSW, 2113
Australia

3M™ Protecta® Energy-Absorbing Lanyards

USER INSTRUCTIONS

9598803 Rev. B

1							
Lanyard Style	**Model**	**Length (L)**	**Type**	**Material**	**Leg**	**Connectors**	
						X	**Y**
A							
	AE529/3AU	2.0 m (6.56 ft.)	Fixed	Web	Single	C1	C1
	AE529/13AU	1.5 m (4.92 ft.)	Fixed	Web	Single	C1	C1
B							
	AE529/3W	2.0 m (6.56 ft.)	Fixed	Kevlar	Single	C1	C1
	AE529/5W	2.0 m (6.56 ft.)	Fixed	Kevlar	Single	C1	C2
	AE529/9W	2.0 m (6.56 ft.)	Fixed	Kevlar	Single	C3	C3
C							
	AE529E/3AU	2.0 m (6.56 ft.)	Elasticated	Web	Single	C1	C1
D							
	AE529ADJ/3AU	2.0 m (6.56 ft.)	Adjustable	Web	Single	C1	C1
	AE529ADJ/5AU	2.0 m (6.56 ft.)	Adjustable	Web	Single	C1	C2

C1	C2	C3	C4
			

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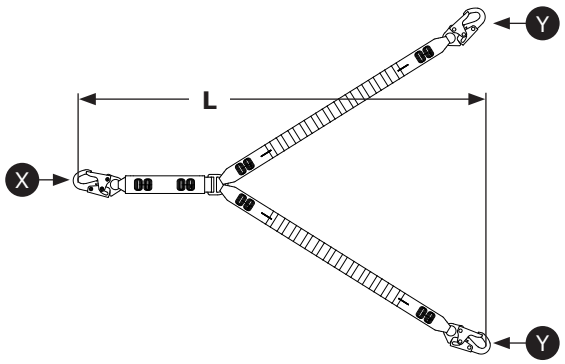
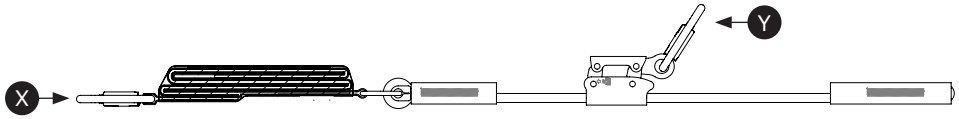
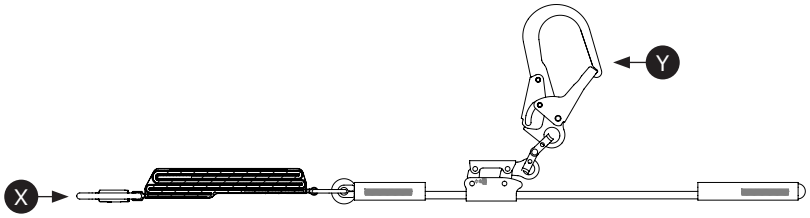
Lanyard Style	**Model**	**Length (L)**	**Type**	**Material**	**Leg**	**Connectors**	
						X	**Y**
E							
	AE529EY/3AU	2.0 m (6.56 ft.)	Elasticated	Web	Twin	C1	C1
	AE529EY/5AU	2.0 m (6.56 ft.)	Elasticated	Web	Twin	C1	C2
F							
	AE529ADJ/9R	2.0 m (6.56 ft.)	Adjustable	Rope	Single	C3	C3
	AE529ADJ/8R	2.0 m (6.56 ft.)	Adjustable	Rope	Single	C4	C4
G							
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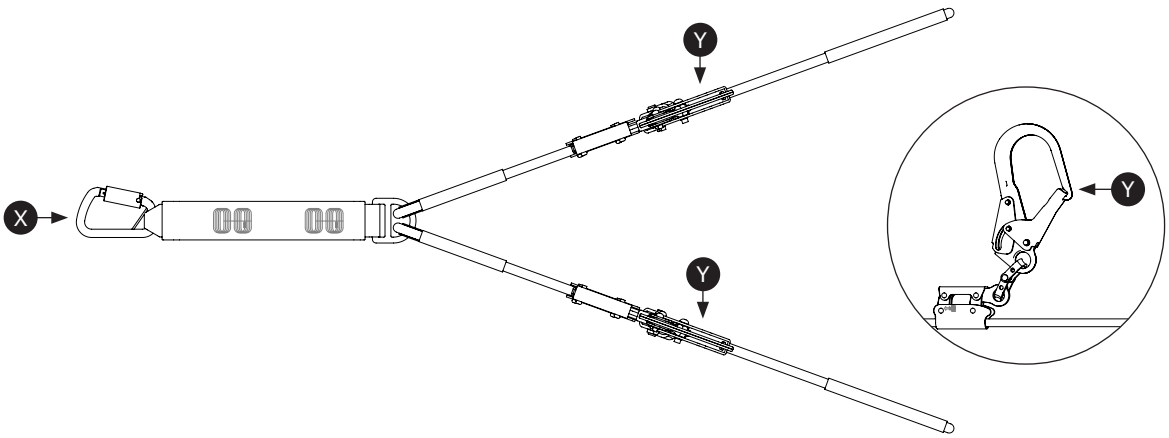
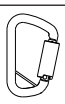
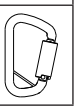
H							
	AE529ADJY/10R	2.0 m (6.56 ft.)	Adjustable	Rope	Twin	C3	C2

C1	C2	C3	C4
			

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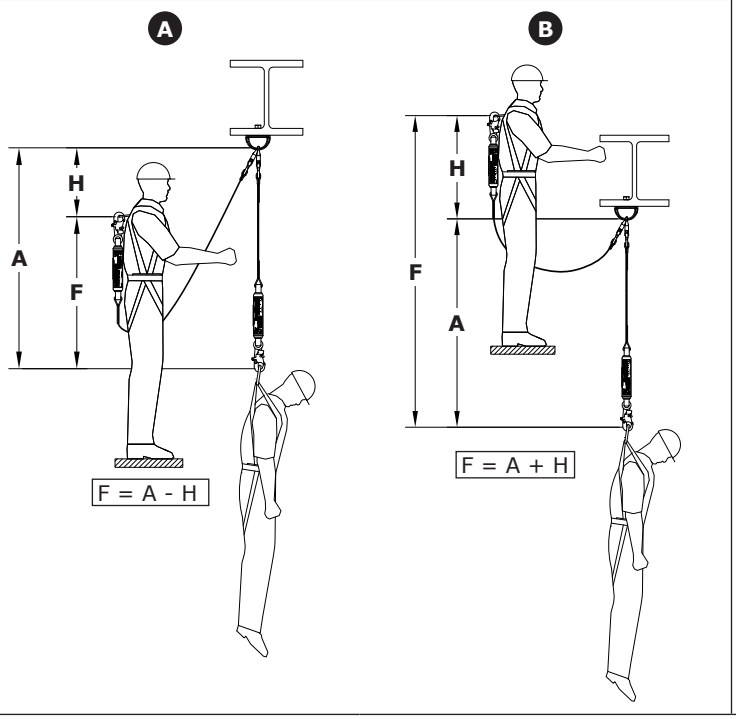

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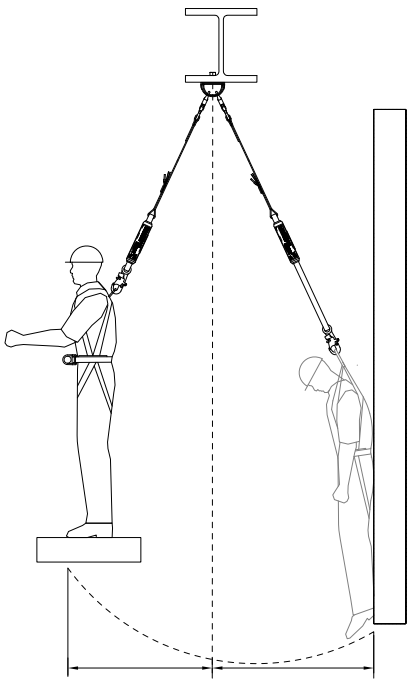

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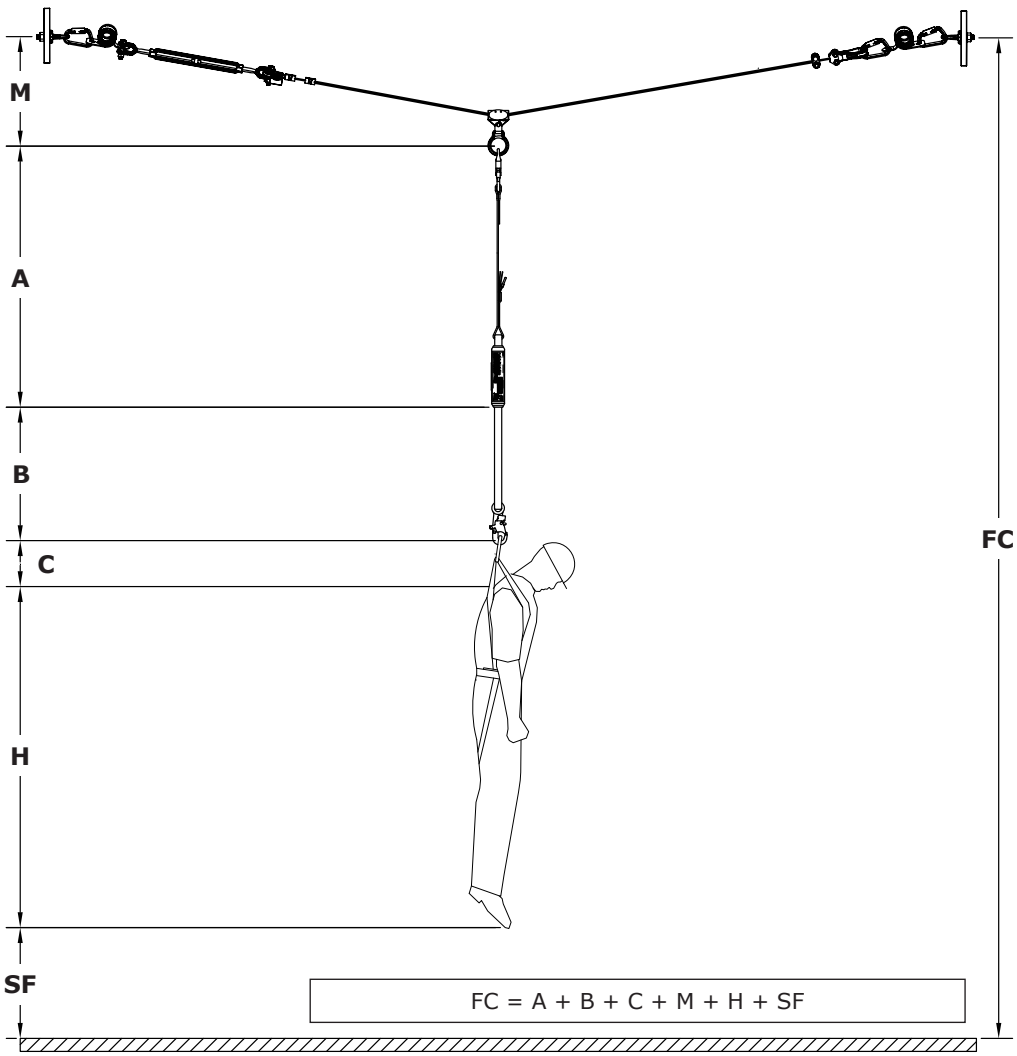

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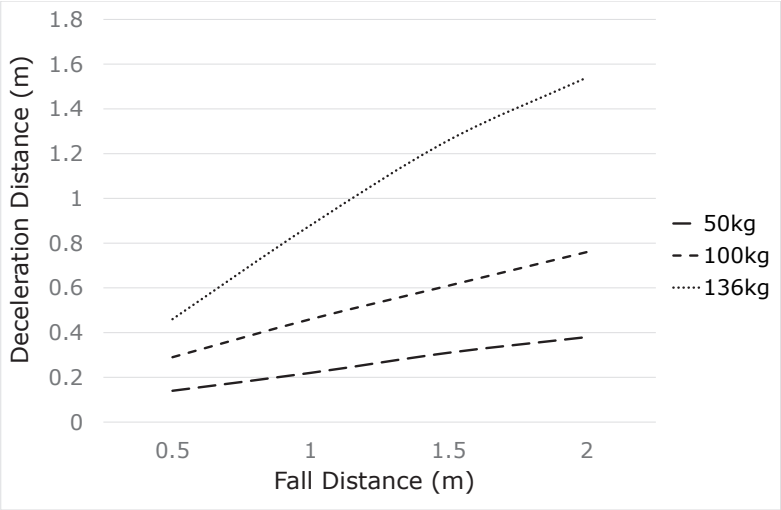
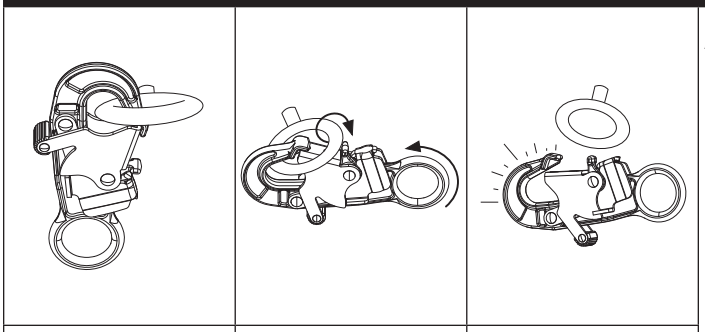

Deceleration Distance (m)
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
0.5
1
1.5
2
Fall Distance (m)
50kg
100kg
136kg

6


A
B
C

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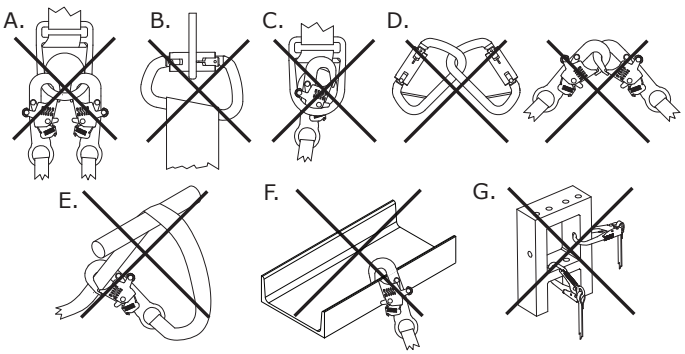
A.
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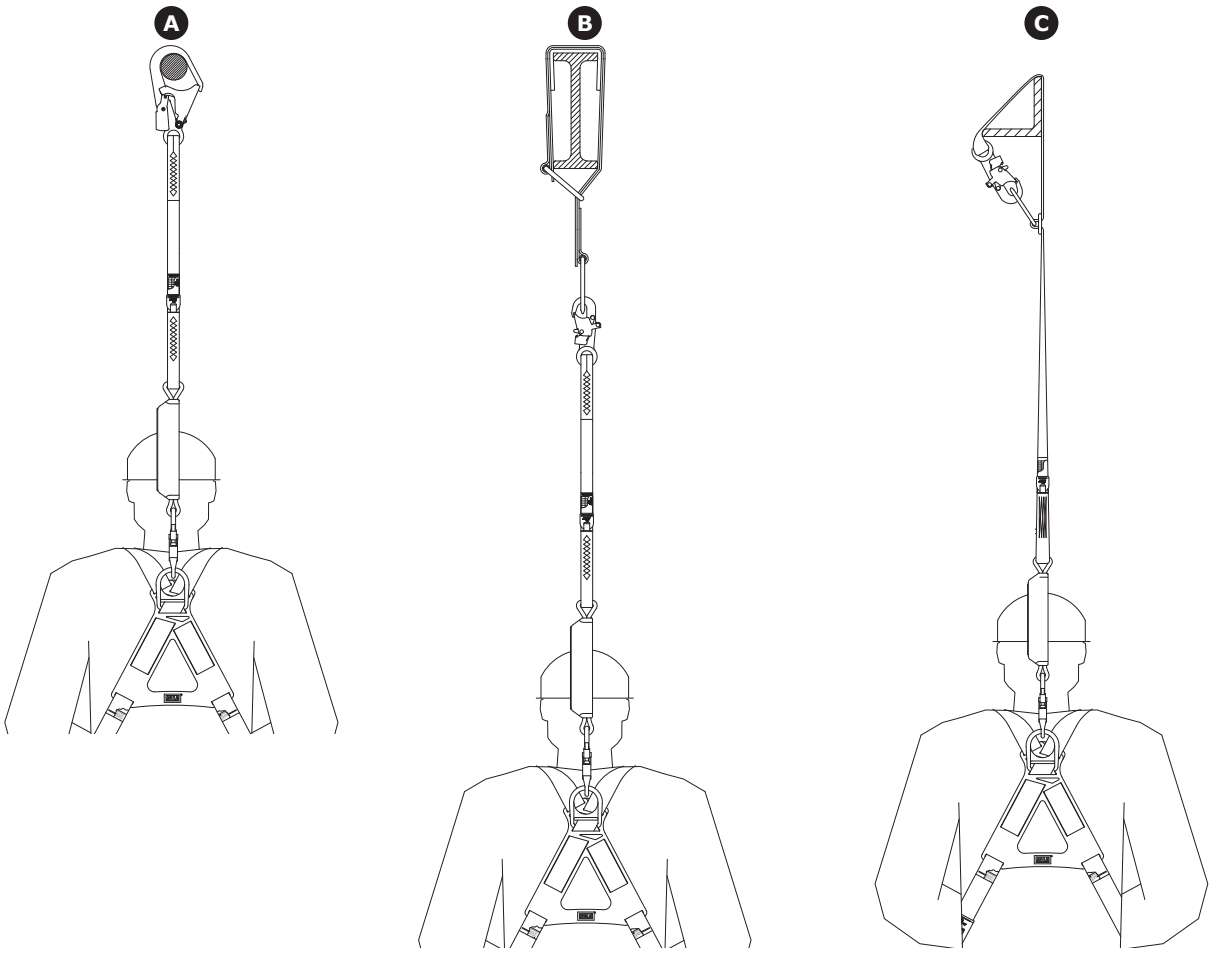

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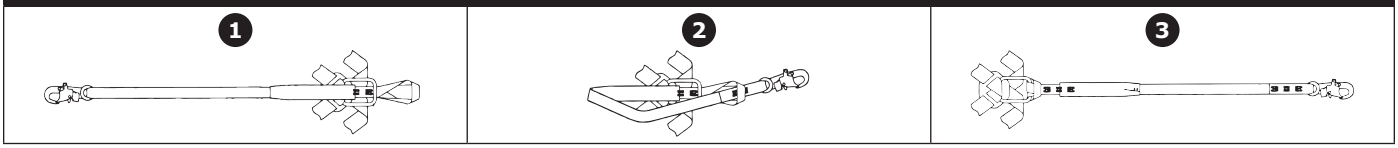

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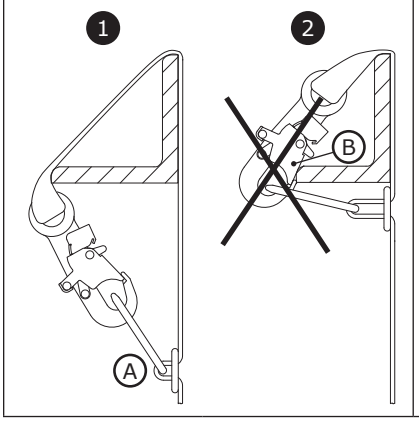

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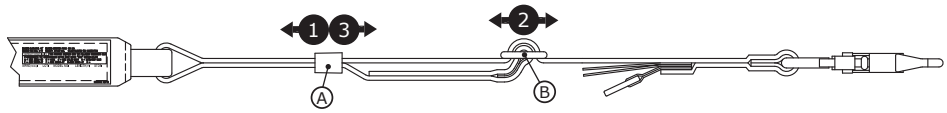

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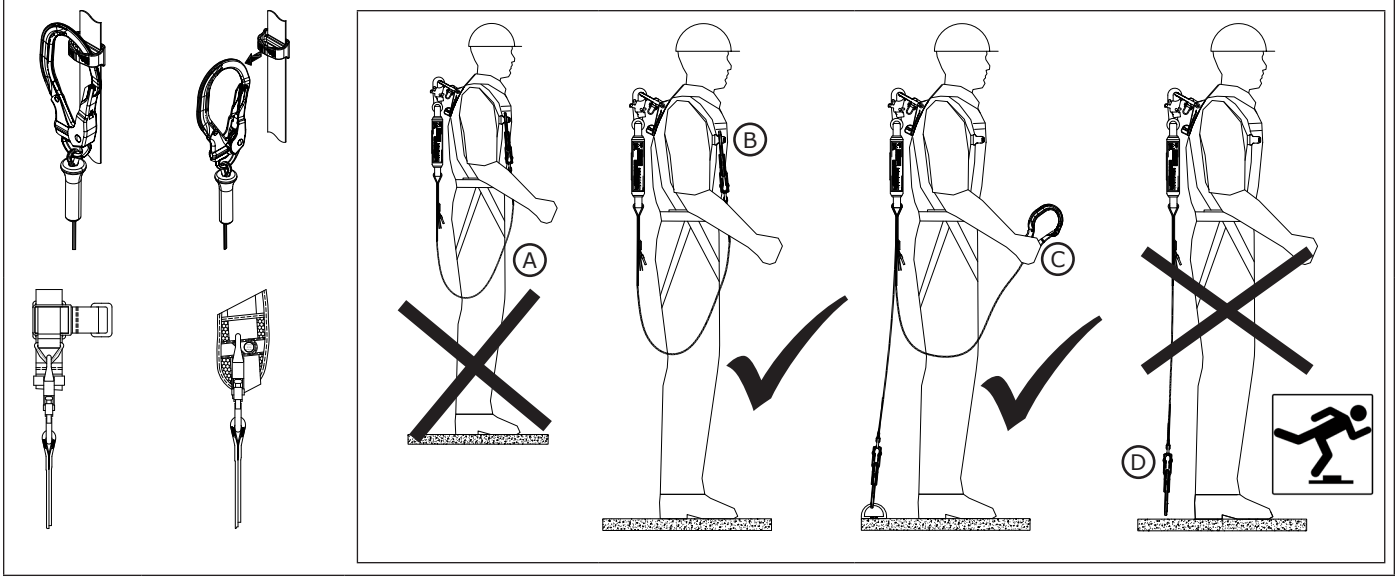

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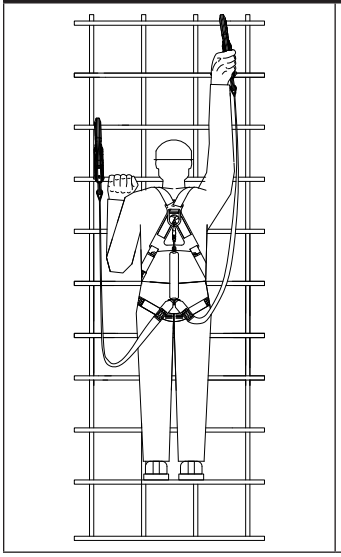

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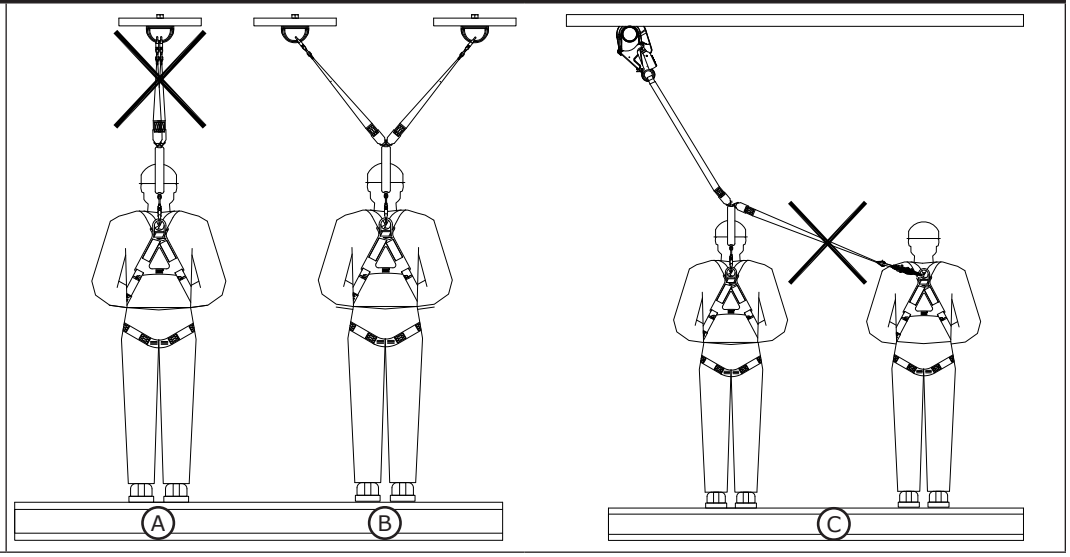

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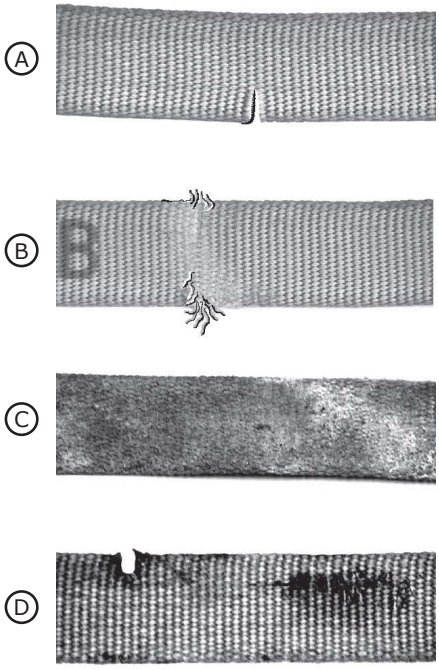

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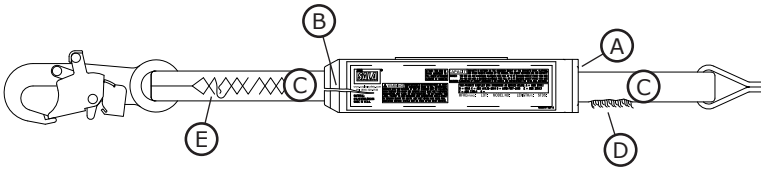

17

A

3M | PROTECTA Fall Protection

PROTECTA

benchmark PRODUCT CERTIFICATION BSI Certified Product

3M ID:
P/N: 1
Description:
Description:
Date of Manufacture: dd/mm/yyyy
Remove from Service: d/mm/yyyy
Lot No: XXXXXXXXXX
Certified to: AS 1891.5:2020
License No.: BMP 750971

Serial No.: See RFID
The maximum allowable free-fall is 2 m
Only competent Users should use this equipment,
Manufacturer's instruction must be followed. 2
Minimum User Capacity: XX kg
Minimum Fall Clearance: XX m
Maximum User Capacity: XXX kg
Maximum Fall Clearance: XX m

EN

SAFETY INFORMATION

Please read, understand, and follow all safety information contained in these instructions, prior to the use of this product. FAILURE TO DO SO COULD RESULT IN SERIOUS INJURY OR DEATH.

These instructions must be provided to the user of the equipment. Retain these instructions for future reference.

Intended Use:

This product is used as part of a complete Fall Protection system.

Use in any other application including, but not limited to, material handling, recreational or sports related activities, or other activities not described in these instructions, is not approved by 3M and could result in serious injury or death.

This product is only to be used by trained users in workplace applications.

⚠ WARNING

This product is used as part of a complete Fall Protection system. All users must be fully trained in the safe installation and operation of their complete Fall Protection system. **Misuse of this product could result in serious injury or death.** For proper selection, operation, installation, maintenance, and service, refer to all instruction manuals and manufacturer recommendations. For more information, see your supervisor or contact 3M Technical Services.

- **To reduce the risks associated with using an Energy-Absorbing Lanyard which, if not avoided, could result in serious injury or death:**
  - Inspect the product before each use and after any fall event, in accordance with the procedures specified in these instructions.
  - If inspection reveals an unsafe or defective condition, remove the product from service immediately and clearly tag it "DO NOT USE". Destroy or repair the product as required by these instructions.
  - Any product that has been subject to fall arrest or impact force must be immediately removed from service. Destroy or repair the product as required by these instructions.
  - Ensure that Fall Protection systems assembled from components made by different manufacturers are compatible and meet all applicable Fall Protection regulations, standards, or requirements. Always consult a Competent or Qualified Person before using these systems.
  - Ensure the product is kept free from all hazards including, but not limited to: entanglement with users, other workers, moving machinery, other surrounding objects, or impact from overhead objects that could fall onto the product or users.
  - Use appropriate edge protection when the product may contact sharp edges or abrasive surfaces.
  - Do not twist, tie, or knot the product.
  - Avoid trip hazards with lanyard legs. Attach any unused lanyard legs to the lanyard parking elements on your full body harness, if present.
  - Do not exceed the number of allowable users as described in these instructions.
  - Ensure the product is configured and installed properly for safe operation as described in these instructions.
  - Use caution when installing, using, or moving the product as moving parts may create pinch points.

- **To reduce the risks associated with working at height which, if not avoided, could result in serious injury or death:**
  - Your health and physical condition must allow you to safely work at height and to withstand all forces associated with a fall arrest event. Consult your doctor if you have questions regarding your ability to use this equipment.
  - Never exceed allowable capacity of your Fall Protection equipment.
  - Never exceed the maximum free fall distance specified for your Fall Protection equipment.
  - Do not use any Fall Protection equipment that fails inspection, or if you have concerns about the use or suitability of the equipment. Contact 3M Technical Services with any questions.
  - Some subsystem and component combinations may interfere with the operation of this equipment. Only use compatible connections. Contact 3M Technical Services prior to using this equipment in combination with components or subsystems other than those described in these instructions.
  - Use extra precautions when working around moving machinery, electrical hazards, extreme temperatures, chemical hazards, explosive or toxic gases, sharp edges, abrasive surfaces, or below overhead materials that could fall onto you or your Fall Protection equipment.
  - Ensure use of your product is rated for the hazards present in your work environment.
  - Ensure there is sufficient fall clearance when working at height.
  - Never modify or alter your Fall Protection equipment. Only 3M, or persons authorized in writing by 3M, may make repairs to 3M equipment.
  - Before using Fall Protection equipment, ensure a written rescue plan is in place to provide prompt rescue if a fall incident occurs.
  - If a fall incident occurs, immediately seek medical attention for the fallen worker.
  - Only use a full body harness for Fall Arrest applications. Do not use a body belt.
  - Minimize swing falls by working as directly below the anchorage point as possible.
  - A secondary Fall Protection system must be used when training with this product. Trainees must not be exposed to an unintended fall hazard.
  - Always wear appropriate Personal Protective Equipment when installing, using, or inspecting the product.
  - Never work below a suspended load or worker.
  - Always maintain 100% tie-off.

☑ *Before using this equipment, record the product identification information from the ID label in the 'Inspection and Maintenance Log' at the back of this manual.*

☑ *Always ensure you are using the latest revision of your 3M instruction manual. Visit the 3M website or contact 3M Technical Services for updated instruction manuals.*

PRODUCT DESCRIPTION:

Figure 1 lists the 3M™ Protecta® Lanyards covered by this instruction manual. Lanyards covered in this instruction may be used for Fall Arrest, Restraint, or Work Positioning applications.

Energy-absorbing lanyards are web, rope or Kevlar tethers with connectors on either end, as well as an energy absorber attached on one end. Connectors wil vary per model. For more information, see Connector Specifications below.

One end of the lanyard will secure to the designated attachment element on the user's harness, while the other end secures to the anchorage connection point or anchorage structure.

Table 1 – Specifications

Connector Specifications:

Figure 1 Reference	Model Number	Description	Material	Gate Opening	Gate Strength	Tensile Strength
C1	2000161	Snap Hook	Zinc-plated steel	19 mm (3/4 in.)	3,600 lbf (16 kN)	5,000 lbf (22.2 kN)
C2	2000164	Rebar Hook	Alloy steel	60 mm (2-3/8 in.)	3,600 lbf (16 kN)	5,000 lbf (22.2 kN)
C3	R-113	Carabiner	Steel	20 mm (13/16 in.)	3,600 lbf (16 kN)	9,200 lbf (41 kN)
C4	R-119	Carabiner	Stainless steel	20 mm (13/16 in.)	3,600 lbf (16 kN)	9,200 lbf (41 kN)

Material Specifications:

Material	Description
Webbing	Polyester - 27 kN (6,000 lbf) Tensile Strength
	Meta Aramid/Kevlar - 40 kN (8990 lb) Tensile Strength
Rope	Nylon - 27 kN (6,000 lbf) Tensile Strength; kernmantle rope, 13 mm diameter
Thread	Polyester
D-Rings	Alloy steel - 22.2 kN (5,000 lbf) Tensile Strength

Performance Specifications:

Capacity:	One person with a combined weight (including clothing, tools, etc.) of no more than 136 kg (300 lb.).
Maximum Arresting Force:	6 kN (1,350 lbf)
Maximum Free Fall:	2.0 m (6.6 ft.)
Anchorage:	The anchorage structure must be able to withstand at least 15 kN (3,372 lbf).
Standards:	Conforms with and is certified to the requirements of AS 1891.5:2020.

Lanyard User Capacity	Minimum Required Fall Clearance (Below Anchorage Point)
50 kg (Minimum Capacity)	5.5 m (18.04 ft.)
100 kg (Mid-range Capacity)	6.3 m (20.67 ft.)
136 kg (Maximum Capacity)	6.8 m (22.31 ft.)

Energy Absorber Deployment (Figure 5)

Figure 5 illustrates Free Fall and Deployment Distance of Energy Absorbers at different user weights. To use the graph, look up your required Free Fall Distance along the 'X' axis, find the User Weight graph line nearest to your applicable value, and then determine the Deployment Distance of that graph line by reading the 'Y' axis. If your weight falls between the user weights displayed on the graph, refer to the higher of the two lines when determining Deployment Distance.

1.0 PRODUCT APPLICATION

1.1 **PURPOSE:** Energy-Absorbing Lanyards are designed for use in Fall Arrest, Restraint, or Work Positioning applications. Figure 1 identifies the Lanyard models covered by this instruction. See Table 1 for more information on system applications available for your specific lanyard model.

☑ *Only Energy-Absorbing Lanyards (which include an integral energy absorber) may be used for Fall Arrest.*

1.2 **STANDARDS:** Your product conforms to the national or regional standards identified on the front cover of these instructions. If this product is resold outside the original country of destination, the re-seller must provide these instructions in the language of the country in which the product will be used.

1.3 **TRAINING:** This equipment must be installed and used by persons trained in its correct application. This manual is to be used as part of an employee training program as required by national, regional, or local standards. It is the responsibility of the users and installers of this equipment to ensure they are familiar with these instructions, trained in the correct care and use of this equipment, and are aware of the operating characteristics, application limitations, and consequences of improper use of this equipment.

☑ *Users should consult AS/NZS 1891.4 for selection, use, maintenance, and training requirements.*

1.4 **RESCUE PLAN:** When using this equipment and connecting subsystems, the employer must have a written rescue plan and the means to implement and communicate that plan to users, authorized persons, and rescuers. A trained, on-site rescue team is recommended. Team members should be provided with the equipment and techniques necessary to perform a successful rescue. Training should be provided on a periodic basis to ensure rescuer proficiency. Rescuers should be provided with these instructions. There should be visual contact or means of communication with the person being rescued at all times during the rescue process.

1.5 **REQUIREMENTS:** Always consider the following limitations when installing or using this equipment:

- **Capacity:** Lanyards are for use by one person with a combined weight (clothing, tools, etc.) meeting the capacity requirements specified in Table 1. Make sure all of the components in your system are rated to a capacity appropriate to your application.
- **Anchorage:** Anchorage requirements vary with the Fall Protection application. The mounting structure on which the equipment is placed must meet the Anchorage specifications defined in Table 1.
- **Free Fall:** Fall Arrest systems incorporating Energy-Absorbing Lanyards covered in this instruction must be rigged to limit free fall to 2.0 m (6.56 ft.) or less. Free Fall Distance changes with lanyard slack and orientation of the Harness Connection Point to the Anchorage Connection Point (see Figure 2):

If the Harness Connection Point is **below** the Anchorage Connection Point (Figure 2A): **F = A - H**
If the Harness Connection Point is **above** the Anchorage Connection Point (Figure 2B): **F = A + H**

F	Free Fall Distance
H	Vertical Distance from the Harness Connection Point to the Anchorage Connection Point.
A	Lanyard Length

☑ ***Do not lengthen lanyards:*** *Do not lengthen Lanyards by connecting to another lanyard, energy absorber, or similar component without consulting 3M.*

- **Swing Falls:** Swing Falls occur when the anchorage point is not directly above the point where a fall occurs. The force of striking an object in a swing fall may cause serious injury (see Figure 3). Minimize swing falls by working as directly below the anchorage point as possible.
- **Fall Clearance:** Figure 4 illustrates calculation of the required clearance below the Lanyard System Anchorage. Required clearance will vary with the amount of deployment of the Energy Absorber (B). The graph in Figure 5 illustrates Energy Absorber Deployment based on Worker Weight and Free Fall Distance. If a Dorsal D-ring Extension is used, this will increase required clearance by the length of the D-ring Extension. For more information on Figure 5, refer to Table 1.

To calculate Required Fall Clearance (FC): **FC = M + A + B + C + 1.5 m (5 ft.) + 0.6 m (2 ft.)**

FC	Amount of Fall Clearance required below the working surface
MA	Maximum Anchorage System Deflection
A	Lanyard Length (see Figure 1)
B	Deployment Distance (see Figure 5 and Table 1)
C	Estimated Harness Stretch; typically 0.3 m (1.0 ft.)
H	Distance from Dorsal D-Ring to Toes; typically 1.5 m (5.0 ft.)
SF	Safety Factor; 1.0 m (3.3 ft.)

- **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: high heat, chemicals, corrosive environments, high voltage power lines, explosive or toxic gases, moving machinery, sharp edges, or overhead materials that may fall and contact the user or equipment. Contact 3M Technical Services for further clarification.
- **Lifeline Hazards:** Ensure the lifeline is kept free from all hazards including, but not limited to: entanglement with

users, other workers, moving machinery, other surrounding objects, or impact from overhead objects that could fall onto the lifeline or users.

- **Sharp Edges:** Avoid working where system components may come into contact with sharp edges or abrasive surfaces. Where contact with a sharp edge or abrasive surface is unavoidable, cover the area with protective material.

2.0 SYSTEM REQUIREMENTS

2.1 INSPECTION FREQUENCY: Lanyards shall be inspected by the worker[1] before and after each use. Additionally, inspections shall be conducted by a Competent Person[2] other than the user. Extreme working conditions (harsh environment, prolonged use, etc.) may necessitate more frequent competent person inspections. The competent person shall determine appropriate inspection intervals. Inspection procedures are described in the *Inspection & Maintenance Log (Table 2)*. Results of the Competent Person inspection should be recorded in the *Inspection and Maintenance Log* or recorded with the Radio Frequency Identification (RFID) system.

2.2 BODY SUPPORT: A Full Body Harness must be used with the lanyard. The harness connection point must be above the user's center of gravity. A body belt is not authorized for use with Energy-Absorbing Lanyards. If a fall occurs when using a body belt, it may cause unintentional release or physical trauma from improper body support.

2.3 COMPATIBILITY OF COMPONENTS: Unless otherwise noted, 3M equipment is designed for use with 3M approved components and subsystems only. Substitutions or replacements made with non approved components or subsystems may jeopardize compatibility of equipment and may affect safety and reliability of the complete system.

2.4 COMPATIBILITY OF CONNECTORS: Connectors are compatible with connecting elements when the size and shape of either component does not cause the connector to inadvertently open, regardless of orientation. Connectors must comply with applicable standards. Connectors must be fully closed and locked during use.

3M Connectors (snap hooks and carabiners) are designed to be used only as specified in each instruction manual. Ensure connectors are compatible with the system components to which they are connected. Do not use equipment that is non-compatible. Use of non-compatible components may cause the connector to unintentionally disengage (see Figure 6). If the connecting element to which a connector attaches is undersized or irregular in shape, a situation could occur where the connecting element applies a force to the gate of the connector (A). This force could then cause the gate to open (B), disengaging the connector from the connecting element (C).

2.5 MAKING CONNECTIONS: Making Connections: All connections must be compatible in size, shape, and strength. See Figure 7 for examples of inappropriate connections. Do not attach snap hooks and carabiners:

A. To a D-ring to which another connector is attached.

B. In a manner that would result in a load on the gate. Large-throat snap hooks should not be connected to standard-size D-Rings or other connecting elements, unless the snap hook has a gate strength of 16 kN (3,600 lbf) or greater.

C. Directly to webbing or rope lanyard or tie-back material, unless the instruction manuals for both the lanyard and connector specifically allow such a connection.

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 whose size or shape does not allow the connector to fully close and lock, or that could cause connector roll-out.

G. In a manner that does not allow the connector to align properly while under load.

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1 Worker: *Any person wo is protected from falling by an active Fall Protection system; or, in the case of a Fall Arrest system, any person who might fall while attached to the system.*

2 Competent Person: *An individual designated by the employer to be responsible for the immediate supervision, implementation, and monitoring of the employer's managed fall protection program who, through training and knowledge, is capable of identifying, evaluating, and addressing existing and potential fall hazards, and who has the employer's authority to take prompt corrective action with regard to such hazards.*

3.0 INSTALLATION

3.1 **PLANNING:** Plan your Fall Protection system before starting your work. Account for all factors that may affect your safety before, during, and after a fall. Consider all requirements and limitations defined in Section 1.

3.2 **ANCHORAGE CONNECTION:** Figure 8 illustrates connection of the Lanyard to various anchorage options. Select an anchorage location with minimal free fall and swing fall hazards. Select a rigid anchorage point capable of sustaining the static loads defined in Table 1. Where anchoring overhead is not feasible, the Lanyard may be secured to an anchorage point below the level of the user's Dorsal D-Ring, but must not be anchored below the worker's feet.

The anchorage end of the Lanyard is configured with various options for securing to anchorage:

- **Hook Connection:** Figure 8A shows connection to rebar with the Lanyard's Rebar Hook. Figure 8B shows connection to a Tie-Off Adapter choked around an I-Beam with the Lanyard's Snap Hook. See Section 2 for details regarding connector compatibility and proper connection.
- **Tie-Back Connection:** Figure 8C shows tie-back around a piece of angle iron with a Tie-Back Lanyard. Secure the Tie-Back Lanyard around the anchorage structure as illustrated in Figure 10:
    1. Hang the leg of the Tie-Back Lanyard over the anchorage structure without twisting the Lanyard. Adjust the Floating D-Ring (A) so it hangs below the anchorage structure. Secure the Lanyard Snap Hook on the Floating D-Ring. Ensure the Lanyard is cinched tight around the anchorage structure.
    2. Do not allow the Snap Hook Gate (B) to contact the anchorage structure.

3.3 **HARNESS CONNECTION:** Lanyards must be used with a Full Body Harness. For Fall Arrest applications, connect the energy absorber end of the Energy-Absorbing Lanyard to the Dorsal D-Ring on the Harness (see Figure 8). Refer to the instructions included with your harness for other Fall Protection applications and recommended harness connections.

Some Lanyard models are equipped with a Choker Loop that chokes on to the Harness D-Ring or Web Loop (see Figure 9). To choke the lanyard on to the Harness D-Ring or Web Loop:

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.

☑ *Do not connect a Lanyard, Energy-Absorbing Lanyard, or Energy Absorber to a Self-Retracting Device (SRD). Special applications exist where connection to an SRD may be permissible. Contact 3M Technical Services with any questions or concerns.*

☑ *Always check the connection points of your lanyard before use to ensure the lanyard is properly secured.*

3.4 **LANYARD ADJUSTMENT:** Some Lanyard models are equipped with an Adjuster to shorten or lengthen the Lanyard Leg(s) and eliminate Lanyard slack. Keeping the Lanyard taut reduces the chance of tripping on the Lanyard or snagging the Lanyard on surrounding objects.

☑ *When adjusting the lanyard, ensure free fall distance is kept to a minimum. Never exceed the maximum free fall distance of 2.0 m (6.6 ft.).*

- **Buckle Adjuster (Figure 11):** To adjust the length of the Lanyard Leg:
    1. Slide the Loop Keeper (A) away from the Buckle Adjuster (B).
    2. Slide the Buckle Adjuster up or down the webbing to shorten or lengthen the Lanyard Leg.
    3. Slide the Loop Keeper back to secure the webbing and Buckle Adjuster.

4.0 USE

4.1 **BEFORE EACH USE:** Verify that your work area and Fall Protection system meet all criteria defined in these instructions. Verify that a formal Rescue Plan is in place. Inspect the product per the 'User' inspection points defined in the "Inspection and Maintenance Log". If inspection reveals an unsafe or defective condition, or if there is any doubt about its condition for safe use, remove the product from service immediately. Clearly tag the product "DO NOT USE". See Section 5 for more information.

4.2 **AFTER A FALL:** If the product is subjected to fall arrest or impact force, remove the product from service immediately. Clearly tag the product "DO NOT USE". See Section 5 for more information.

4.3 **SYSTEM APPLICATIONS:** Figure 8 shows system connections for typical Lanyard applications. If using an Energy-Absorbing Lanyard, always connect the end of the lanyard with the energy absorber to the Full Body Harness first and then connect the leg end to suitable anchorage. See Section 3 for details regarding harness and anchorage connection.

4.4 **LANYARD PARKING ATTACHMENT:** Figure 12 illustrates Harness Lanyard Parking Attachments. The Lanyard Parking Attachment is for attaching the free end of a Lanyard Leg when not connected to an Anchorage Connection Point for purposes of fall protection. Lanyard Parking Attachments must never be used as an attachment element on the Harness for connecting a Lanyard (A).

When not connected to an Anchorage Connection Point, an unconnected Lanyard Leg must be properly parked on the harness (B) or secured in the user's hand as in 100% Tie-Off applications (C). Free-hanging Lanyard Legs (D) can trip the user or catch on surrounding objects resulting in a fall.

4.5 **TWIN LANYARD INTERFACE 100% TIE-OFF:** Twin-Leg Lanyards can be used for continuous fall protection (100% tie-off) while ascending, descending, or moving laterally (see Figure 13). With one Lanyard Leg attached to an anchorage point, the worker can move to a new location, attach the unused Lanyard Leg to another anchorage point, and then disconnect from the original anchorage point. The sequence is repeated until the worker reaches the desired location.

See Figure 14 for Twin-Leg Lanyard 100% tie-off applications. Considerations for Twin Lanyard 100% tie-off applications include the following:

- Never connect both Lanyard Legs to the same anchorage point (see Figure 14A).
- Connecting more than one connector into a single anchorage connection point (ring or eye) can jeopardize compatibility of the connection due to interaction between connectors and is not recommended.
- Connection of each Lanyard Leg to a separate anchorage point is acceptable (Figure 14B).
- Each connection location must meet the Anchorage Requirements defined in Section 1.
- Never connect more than one person at a time to the Twin Leg Lanyard (Figure 14C).
- Do not allow the Lanyard Legs to become tangled or twisted together as this may prevent them from retracting.
- Do not allow Lanyard Legs to pass under arms or between legs during use.

5.0 INSPECTION

☑ *After equipment has been removed from service, it may not be returned to service until a Competent Person confirms in writing that it is acceptable to do so.*

5.1 INSPECTION FREQUENCY: The product shall be inspected before and after each use by the user and, additionally, by a Competent Person other than the user at intervals of no more than six months. A higher frequency of equipment use and harsher conditions may require increasing the frequency of Competent Person inspections. The frequency of these inspections should be determined by the Competent Person per the specific conditions of the worksite.

5.2 INSPECTION PROCEDURES: Inspect this product per the procedures listed in the "Inspection and Maintenance Log". Documentation of each inspection should be maintained by the owner of this equipment. An inspection and maintenance log should be placed near the product or be otherwise easily accessible to users. It is recommended that the product is marked with the date of next or last inspection.

5.3 DEFECTS: If the product cannot be returned to service because of an existing defect or unsafe condition, then it must be destroyed.

5.4 PRODUCT LIFE: The functional life of the product is determined by work conditions and maintenance. As long as the product passes inspection criteria, it may remain in service, for up to 10 years from the date of manufacture.

6.0 MAINTENANCE, SERVICE, and STORAGE

☑ *Equipment that is in need of maintenance or scheduled for maintenance should be tagged "DO NOT USE". These equipment tags should not be removed until maintenance is performed.*

6.1 CLEANING: Cleaning procedures for Lanyards are as follows:

- Periodically clean the exterior of the Lanyard using water and a mild soap solution. Position the Lanyard so excess water can drain out. Clean labels as required.
- Clean the Web Lifeline with water and mild soap solution. Rinse and thoroughly air dry. Do not force dry with heat. The lifeline should be dry before allowing it to retract into the housing. An excessive buildup of dirt, paint, etc. may prevent the lifeline from fully retracting back into the housing causing a potential free fall hazard.

6.2 SERVICE: Lanyards are not repairable. If the Lanyard has been subjected to fall force or if inspection reveals an unsafe or defective condition, remove the Lanyard from service and discard.

6.3 STORAGE AND TRANSPORT: Store and transport Lanyards in a cool, dry, clean environment out of direct sunlight. Avoid areas where chemical vapors may exist. Thoroughly inspect the Lanyard after any period of extended storage.

7.0 LABELS and MARKINGS

7.1 LABELS: Figure 17 illustrates product labels. All labels must be present and fully legible. Information on each label is as follows:

A	1) In order: Model Number, Part Number, Description, Date of Manufacture (Day/Month/Year), Remove from Service (Day/Month/Year), Lot Number, Applicable Standard, License Number 2) Read all instructions.

Table 2 – Inspection & Maintenance Log

Serial Number(s):	**Date Purchased:**
Model Number:	**Date of First Use:**
Inspected By:	**Inspection Date:**

Component:	**Inspection:**	**User**	**Competent Person**
End Connectors	Inspect all connectors for signs of damage, corrosion, and proper working condition. Where present: Carabiner and snap hook gates should open, close, lock, and unlock properly. Inspect rope grabs per the instructions included with the Rope Grab or Vertical Lifeline. D-rings should be inspected for cracks, bending, deformities, and other signs of damage.	☐	☐
Web and Rope Lanyards (Figure 15)	Inspect webbing and rope; material must be free of cuts (A), frays (B), or broken fibers. Check for tears, abrasions, heavy soiling (C), mold, burns (D), or discoloration. Inspect stitching; Check for pulled or cut stitches. Broken stitches may be an indication that the harness has been impact loaded and must be removed from service.	☐	☐
Energy Absorber (Figure 16)	Verify that the integral Energy Absorber has not been activated. An open cover (A) or torn cover (B), webbing pulled out of the cover (C), torn or frayed webbing (D), and ripped or missing stitching (E). are indicators of an activated Energy Absorber.	☐	☐
Labels (Figure 17)	All labels should be present and fully legible.	☐	☐

Corrective Action/Maintenance:	Approved By: Date:	Next inspection due:
Corrective Action/Maintenance:	Approved By: Date:	Next inspection due:
Corrective Action/Maintenance:	Approved By: Date:	Next inspection due:
Corrective Action/Maintenance:	Approved By: Date:	Next inspection due:
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Corrective Action/Maintenance:	Approved By: Date:	Next inspection due:

3M AUSTRALIA PTY LTD & 3M NEW ZEALAND LTD ("3M") LIMITATION OF LIABILITY

To the extent permitted by law, 3M's liability and the liability of the person who sold you this product, is limited at 3M's option, to the repair or replacement of the goods or the refund of the purchase price of the goods. 3M will not be liable for any equipment damage resulting from wear, abuse, damage in transit, failure to maintain the product or other damage beyond the control of 3M.

Except to the extent that such liability is not able to be excluded by law, all other liability of 3M whether arising from negligence or otherwise is expressly excluded. For the avoidance of doubt, except where required by the Australian Consumer Law or any other law that cannot be excluded, 3M will not be liable for any indirect, special, incidental or consequential loss (including, but not limited to, loss of profits, and the costs of inspection, testing, storage or transportation).

3M reserves the right to require that the equipment be returned to its plant for inspection before determining the appropriate course of action.

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