MALTA DYNAMICS

Lanyards

Instruction Manual

Lanyards
INSTRUCTION MANUAL

These instructions apply to the following model(s):
C5000, C5001, C5002, C5003, C5004, C5005, C5006, C5007, C5011, C5013, C5015, C5017, C5104, C5106, C5115, C5117

Manual Revision Code:
MD-LUIM160805

A copy of this manual must be available to users at all times. Visit www.MaltaDynamics.com for the latest user instruction manual based upon date of manufacture.

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UNDER PENALTY OF LAW

This manual must be read and understood in its entirety and used as part of your fall protection training program as required by OSHA 1926 and State and local regulatory agencies. This instruction manual is intended to meet industry standards required by and ANSI Z359.0-2007 and should be used as part of an Employee Fall Safety training program as required by OSHA. User must read and fully understand the limitations and proper use of the equipment, and be properly trained by employer prior to use per OSHA 29 CFR 1910.66, 29 CFR 1926.503, and applicable local standards.

NOTE: This *User Instruction Manual* is not to be removed except by the user of this equipment. Current *User Instruction Manuals* must always be available to the user. Read and understand these instructions before using equipment. *Do not discard these instructions.*

WARNING

Misuse or failure to follow warnings, instructions and limitations on the use of this equipment may result in serious personal injury or death. For further instructions about proper use, refer to supervisor or contact Malta Dynamics at 1-800-494-1840.

PURPOSE

Malta Dynamics Lanyards are designed to be used as a part of a personal fall arrest system to help limit the forces associated with fall arrest in the event of a fall.

INSTRUCTIONS FOR USE

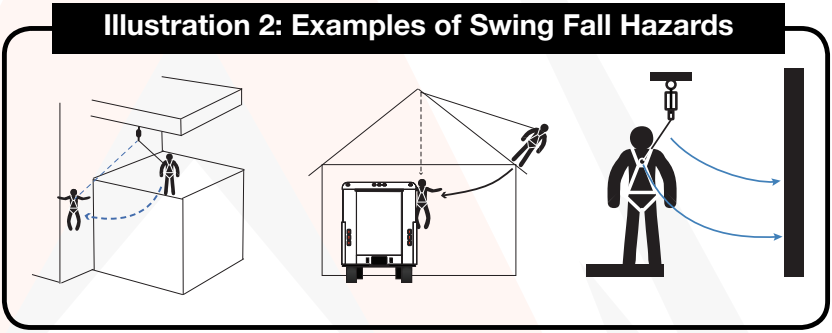
WARNING

Do not alter or intentionally misuse this equipment.

- Personal Fall Arrest System (PFAS) MUST limit maximum arrest forces to 1800 lbs. (8kN) or less.
- Employees shall be trained in accordance with the requirements of OSHA 29 CFR 1910.66 in the safe use of the system and its components before using a PFAS.

- Inspect all Personal Fall Arrest System equipment for wear, damage, and other deterioration prior to each use. Remove defective equipment from service immediately.
- Thoroughly evaluate and plan all elements of Fall Protection System(s) before using this equipment. Make sure that your Personal Fall Arrest System is appropriate for your needs and facility. Calculate fall clearance and swing fall clearance. The amount of clearance required is dependent on the type of connecting subsystem (rope grab, lanyard), the anchorage location, and the amount of stretch in the lifeline. When calculating distance, be sure to consider:
  - Deceleration Distance
  - Movement of harness attachment element (D-ring)
  - Free Fall Distance
  - Height of the worker (how tall is the worker?)
  - Elevation of Anchorage Connector
  - Connecting Subsystems length
- 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 or death. Minimize potential for swing falls by working as close to the anchorage point as possible. Do not permit a swing fall if injury could occur. Swing falls significantly increase the amount of clearance required. **See Illustration 2.**

Illustration 2: Examples of Swing Fall Hazards



- Users must have a written rescue plan and the means to implement it. This plan must provide prompt employee rescue or assure that employees have the ability to rescue themselves in the event of a fall.
- Store this equipment in a cool, dry, and clean environment that is out of direct light when not in use to prevent UV degradation.
- This equipment must be removed from service immediately if a fall is incurred.
- Do not wrap the shock absorbing lanyards around any structure and connect the lanyard back.
- Striking objects horizontally due to the pendulum effect of a swing fall may cause serious injury or death.

- Always attach an unused lanyard to a lanyard storage keeper when not in use.
- Never attach the unused leg of the lanyard to the harness at any other location.
- The regulations included herein are for reference only. They are not all-inclusive and not intended to replace a Competent Person's judgment or knowledge of federal or state standards.
- The analysis of the workplace must anticipate where workers will be performing tasks, the routes they will take to reach their tasks, and the potential/existing exposure to fall hazards.
- A Competent Person must choose fall protection equipment. Selections must account for all potential hazardous workplace conditions.
- All fall protection equipment should be purchased in a new and unused condition.
- Select and install fall protection systems under the supervision of a Competent Person. Fall protection systems must be used in a compliant manner.
- Fall protection systems must be designed in compliance with all federal, state, and local safety regulations.
- A Competent Person must calculate forces applied to anchors.
- Harnesses and connectors selected must be compliant with manufacturer's instructions and must be of compatible size and configuration.
- A pre-planned rescue procedure is required as part of a complete fall protection program. The rescue plan must be project specific. The rescue plan must either allow for employees to rescue themselves or provide an alternative means for their prompt rescue. Store rescue equipment in an easily accessible and clearly marked area.
- A Competent Person must train Authorized Persons to correctly erect, disassemble, inspect, maintain, store, and use equipment. Training must include the correct use of personal fall arrest systems, the ability to recognize fall hazards, and how to reduce the dangers of fall hazards.
- NEVER use any fall protection equipment to hang, lift, support, or hoist tools or equipment unless that equipment is explicitly certified for such use.
- A Competent Person must inspect equipment at least every six months. These inspections must be documented in equipment instruction manual and on equipment inspection grid label.
- Equipment must be inspected for defects including (but not limited to): the absence of required labels or markings, improper form/fit/function, evidence of cracks, sharp edges, deformation, corrosion, excessive heating, alteration, excessive wear, fraying, knotting, abrasion, and absence of parts. Equipment that fails inspection in any way must immediately be removed from use or repaired by an entity approved by Malta Dynamics.

- Physical harm may still occur even if fall safety equipment functions correctly.

LIMITATIONS FOR USE

WARNING

Do not use this equipment if you are unable to tolerate the impact of a fall arrest. Age and fitness can seriously affect your ability to withstand a fall. Consult with a physician if in doubt. Minors, pregnant women, and anyone with a history of back and/or neck problems must not use this equipment.

WARNING

Use caution when employing this equipment around machines, electrical hazards, chemical hazards and sharp edges or abrasive surfaces, as contact may cause equipment failure, personal injury, or death.

- Use only with compatible components or subsystems. 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.
- This equipment is designed for a single user. Combined weight of user, including clothing, tools, etc. must not exceed weight capacity of up to 310 lbs.
- Use only with structures capable of supporting static loads required for Personal Fall Arrest Systems (PFAS) as follows:
- **FALL ARREST:** OSHA 1910.66 and 1926.502 state that anchorages used for attachment of a PFAS must be independent of any anchorage being used to support or suspend platforms, and must support at least 5,000 lbs. 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 (architect, structural engineer, etc.). The anchorage to which this SAL is attached must be capable of sustaining static loads in directions applied by the personal fall arrest system of at least 3,600 lbs (or at least twice the expected dynamic load) with certification of a qualified person (architect, structural engineer, etc.), or 5,000 lbs in the absence of certification. If multiple personal fall arrest systems are being attached to the same anchorage, the minimum values stated above must be multiplied by the number of users.

- Do not expose this equipment to chemicals or harsh solutions that may have a harmful effect.
- User must not use or install equipment before receiving proper training from a Competent Person, as defined by OSHA 29 CFR 1926.32(f).
- Only Malta Dynamics shall make repairs or alterations to the equipment.
- Shock Absorbing Lanyards marked “ANSI Z359.13” and “6ft. Maximum Free Fall” are designed for up to 6-foot free fall applications with a maximum capacity up to 310 lb. (141 kg) including clothing, tools, etc.
- Shock Absorbing Lanyards must be used with a full body harness.
- Shock Absorbing Lanyards are designed for a single user.
- Unless explicitly stated otherwise, the maximum allowable free fall distance for lanyards must not exceed 6 feet.
- Do not repair equipment on-site unless explicitly permitted by Malta Dynamics.
- Snap hooks, carabiners, and other connectors must be selected and applied in a compatible fashion. All risk of disengagement must be eliminated. All snap hooks and carabiners must be self-locking and self-closing and must never be connected to each other.
- Age, fitness, and health conditions can seriously affect the worker in the event of a fall.
- Consult a doctor if there is any reason to doubt a user’s ability to set up the equipment or withstand and safely absorb fall arrest forces.
- Allowable range of individual worker weight limit (including all equipment) is 130-310 lb. unless explicitly stated otherwise.

CONNECTOR COMPATIBILITY LIMITATIONS

Malta Dynamics equipment must be coupled only to compatible connectors that are suitable to the specific application. Connectors (hooks, carabiners and D-rings) must be capable of supporting at least 5,000 lbs. (22kN). Connectors must be compatible with the anchorage and all other system components. Ensure all connections are compatible in size, shape and strength.

Ensure all connectors are fully closed and locked. OSHA 29 CFR 1926.502 prohibits the use of snap hooks/rebar hooks to engage to objects unless the following requirements are met:

- Snap hook/rebar hook must be a locking type.
- Snap hook/rebar hook must be explicitly designed for such a connection. “Designed for” means that the manufacturer of the snap hook specifically created the snap hook/rebar hook to be used to connect to the equipment in question.

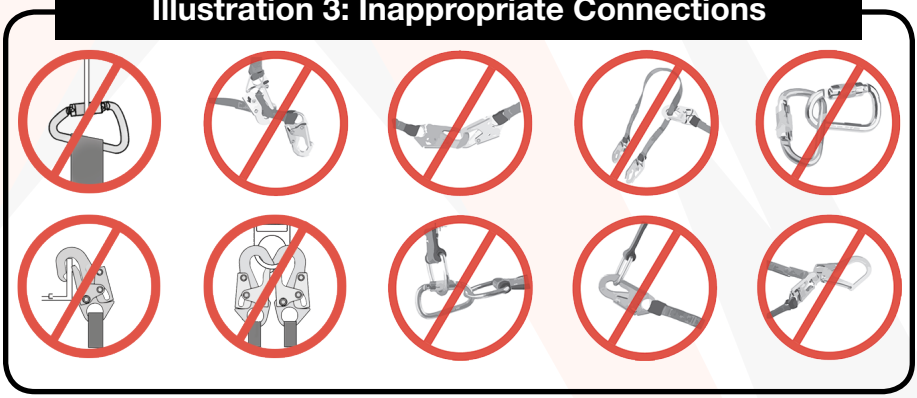
Use of a non-locking snap hook/rebar hook can result in rollout (a process by which a snap hook/rebar hook or carabiner unintentionally disengages from another connector or object to which it is coupled). Malta Dynamics connectors (snap

hooks/rebar hooks and carabiners) are designed to be used only as specified in each product's user's instructions.

Avoid the following types of connections:

- Connection of two (or more) snap hooks/rebar hooks or carabiners to one D-ring.
- Connection of a snap hook/rebar hook back to its integral lanyard.
- Direct connection of a snap hook/rebar hook to horizontal lifeline.
- Connection in a manner that results in a load on the gate. NOTE: *Large throat opening snap hooks should not be connected to standard size D-rings or similar objects, as such use will result in a load on the gate if the hook or D-ring twists or rotates. Large throat snap hooks are designed for use on structural elements such as rebar or cross members that are not shaped in such a way that they may capture the gate of the hook.*
- False engagement connections, where protruding features of the snap hook/rebar hook or carabiner may catch on the anchor and seem to be fully engaged to the anchor point. Always confirm engagement.
- Connection to snap hooks or carabiners.
- Direct connection to webbing lanyard, webbing loop, rope lanyard or tie-back (unless the manufacturer's instructions for both the lanyard and connector specifically allow such a connection).
- Connection of a snap hook to a D-ring, rebar, or other connection point of improper dimensions in relation to the snap hook dimensions or configurations that could cause the snap hook keeper to be depressed by a turning motion of the snap hook, or such that snap hook or carabiner will not fully close and lock, or that roll-out could occur.
- **Illustration 3** depicts examples of a few of these inappropriate connections:

Illustration 3: Inappropriate Connections



COMPONENT LIMITATIONS

Lanyards:

WARNING

Lanyard is a personal protective device and should be used for fall protection only. Other uses may result in serious injury or death.

- For use by **one person only**, weight max. 310 lbs. (including clothing, tools, etc.)
- Do not use if any part of the device appears to be damaged.
- Do not attempt to service the device or alter it in any way.
- The following application limitations must be recognized and considered before using this product:
- **CAPACITY:** This equipment is for use by one person with a combined weight (person, clothing, tools, etc.) of 130 lbs. to 310 lbs.
- **FREE FALL:** Lanyards used for work positioning applications must be rigged to minimize any potential vertical free fall. In no case should potential free fall be greater than two feet. For situations where free fall may exceed two feet, a backup fall arrest system should be used. If D-Ring extension assemblies are used in conjunction with a self-retracting lifeline or an energy absorbing lanyard in a fall arrest application, the length of the D-Ring extension assembly must be taken into account when calculating free fall distance and fall clearance requirements.
- **FALL CLEARANCE:** Always ensure fall clearance distance before using lanyards equipped with energy absorbers (shock packs). If there is a risk of fall or if the only anchorage is below the attachments points on a harness, it is essential to use a lanyard provided with an energy absorber. Before using an energy absorbing lanyard, check that there is sufficient fall clearance below the user to prevent any collision with structure or ground. See **Illustration 3.**
- **BACKUP FALL ARREST SYSTEM:** Some applications of this equipment may require the use of a backup fall arrest system such as when using a Y-lanyard to suspend a person in an Easy Seat.

System:

- A Competent Person must ensure the compatibility of all connections and that of the system.
- Do not use the system if any component in the system does not operate properly.
- Do not use if any part of the system appears to be damaged.
- Do not use a body belt for fall arrest applications.

PERFORMANCE

Each Malta Dynamics Lanyard has been tested in accordance with the requirements of the ANSI Z359.13-2013 standard.

Part Number	Material	Length	Max Elongation	Standard
C5000	Single Leg Polyester External Shock Absorbing Lanyard with 2 Steel Snap Hooks	6 feet	48 inches	ANSI Z359.13-2013
C5001	Single Leg Polyester External Shock Absorbing Lanyard with 1 Steel Snap Hook and 1 Steel Peri Form Hook	6 feet	48 inches	ANSI Z359.13-2013
C5002	Double Leg Polyester External Shock Absorbing Lanyard with 3 Steel Snap Hooks	6 feet	48 inches	ANSI Z359.13-2013
C5003	Double Leg Polyester External Shock Absorbing Lanyard with 1 Steel Snap Hook and 2 Steel Peri Form Hooks	6 feet	48 inches	ANSI Z359.13-2013
C5004	Single Leg Polyester Internal Shock Absorbing Lanyard with 2 Steel Snap Hooks	6 feet	48 inches	ANSI Z359.13-2013
C5005	Single Leg Polyester Internal Shock Absorbing Lanyard with 1 Steel Snap Hook and 1 Steel Peri Form Hook	6 feet	48 inches	ANSI Z359.13-2013
C5006	Double Leg Polyester Internal Shock Absorbing Lanyard with 3 Steel Snap Hooks	6 feet	48 inches	ANSI Z359.13-2013
C5007	Double Leg Polyester Internal Shock Absorbing Lanyard with 1 Steel Snap Hook and 2 Steel Peri Form Hooks	6 feet	48 inches	ANSI Z359.13-2013
C5011	Single Leg Polyester External Shock Absorbing Lanyard with 1 Steel Snap Hook and 1 Steel Rebar Hook	6 feet	48 inches	ANSI Z359.13-2013
C5013	Double Leg Polyester External Shock Absorbing Lanyard with 1 Steel Snap Hook and 2 Steel Rebar Hooks	6 feet	48 inches	ANSI Z359.13-2013
C5015	Single Leg Polyester Internal Shock Absorbing Lanyard with 1 Steel Snap Hook and 1 Steel Rebar Hook	6 feet	48 inches	ANSI Z359.13-2013
C5017	Double Leg Polyester Internal Shock Absorbing Lanyard with 1 Steel Snap Hook and 2 Steel Rebar Hooks	6 feet (Contracts to 4.5')	48 inches	ANSI Z359.13-2013
C5104	Single Leg Polyester Internal Shock Absorbing Stretch Lanyard with 2 Steel Snap Hooks	6 feet (Contracts to 4.5')	48 inches	ANSI Z359.13-2013
C5106	Double Leg Polyester Internal Shock Absorbing Stretch Lanyard with 3 Steel Snap Hooks	6 feet (Contracts to 4.5')	48 inches	ANSI Z359.13-2013
C5115	Single Leg Polyester Internal Shock Absorbing Stretch Lanyard with 1 Steel Snap Hook and 1 Steel Rebar Hook	6 feet (Contracts to 4.5')	48 inches	ANSI Z359.13-2013
C5117	Double Leg Polyester Internal Shock Absorbing Stretch Lanyard with 1 Steel Snap Hook and 2 Steel Rebar Hooks	6 feet (Contracts to 4.5')	48 inches	ANSI Z359.13-2013

Maximum Arrest Force and Maximum Elongation deployment distance of personal energy absorbers when dynamically tested in accordance with ANSI Z359.13 are as follows:

Re: Personal Energy Absorber	Ambient Dry	Ambient Wet	Cold Dry	Hot Dry
6 Ft Free Fall				
Max Arrest Force	≤ 1800 lbs. F	≤ 1800 lbs. F	≤ 1800 lbs. F	≤ 1800 lbs. F
Average Arrest Force	≤ 900 lbs. F	≤ 1125 lbs. F	≤ 1125 lbs. F	≤ 900 lbs. F
Maximum Elongation	48 inches	48 inches	48 inches	48 inches
12 Ft Free Fall				
Max Arrest Force	≤ 1800 lbs. F	≤ 1800 lbs. F	≤ 1800 lbs. F	≤ 1800 lbs. F
Average Arrest Force	≤ 1350 lbs. F	≤ 1575 lbs. F	≤ 1575 lbs. F	≤ 1350 lbs. F
Maximum Elongation	60 inches	60 inches	60 inches	60 inches

Deployments VS Free Fall (Internal Shock Absorbing Lanyards: C5000, C5001, C5002, C5003, C5011, C5013)						
Weight	1ft.	2ft.	3ft.	4ft.	5ft.	6ft.
130 lbs.	2.375”	4.75”	7.875”	12.60”	13.50”	12.50”
220 lbs.	5.125”	11.00”	16.90”	22.75”	12.75”	30.00”
310 lbs.	7.0”	14.75	26.5”	34.5”	43.75”	47.25”
Deployments VS Free Fall (Stretch Internal Shock Absorbing Lanyards: C5104, C5106, C5115, C5117)						
Weight	1ft.	2ft.	3ft.	4ft.	5ft.	6ft.
130 lbs.	2.375”	4.75”	7.875”	12.60”	13.50”	12.50”
220 lbs.	5.125”	11.00”	16.90”	22.75”	12.75”	30.00”
310 lbs.	7.0”	14.75	26.5”	34.5”	43.75”	47.25”
Deployments VS Free Fall (External Shock Pack Lanyards: C5004, C5005, C5006, C5007, C5015, C5017)						
Weight	1ft.	2ft.	3ft.	4ft.	5ft.	6ft.
130 lbs.	2.0”	6.125”	8.25”	10.125”	13.125”	13.75”
220 lbs.	6.625”	11.5”	16.0”	21.0”	25.875”	33.00”
310 lbs.	10.5”	20.625”	26.625”	36.875”	40.375”	48.00”

Applicable Standards:
Refer to national standards, including ANSI Z359.1, and local, state and federal (OSHA 1910.66, appendix C, 1926.500) requirements for more information on personal fall arrest systems and associated components.

Before Each Use:
- Inspect the lanyard for any damage or soiling (dirt, oil, paint, etc.)

- Ensure self-locking snap hooks or carabiners work properly. Inspect rope or webbing for wear, cuts, burns, frayed edges, breaks, or other damage.
- **ANCHORAGE:** Select a rigid anchorage point capable of supporting required loads. Select appropriate anchorage point that will reduce possible free fall and swing fall hazards and avoid striking an object during a fall. Anchorage should be level (horizontal) in order to prevent the connector from sliding on an incline when in use, which could cause serious injury to the user.
- **FALL CLEARANCE:** Should a fall occur, there must be sufficient clearance in the fall area to arrest the fall before striking the ground or other object.
- **FREE FALL:** Personal fall arrest systems must be rigged in such a way that the free fall does not exceed 6 ft. Avoid working above the anchorage level to avoid an increase in fall distance.
- **FALL ARREST FORCES:** The assembled Personal Fall Arrest System must keep fall arrest forces below 1,800 lbs. when used with a full body harness.

Instructions:

- **Do not tie knots of any type in lanyards.**
- Do not hook a lanyard back upon itself (choker style).
- Do not attach snap hooks to web loops.
- OSHA 1910.66 and 1926.502 state that anchorages used for attachment of a PFAS must be independent of any anchorage being used to support or suspend platforms, and must support at least 5,000 lbs. 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 (architect, structural engineer, etc.). The anchorage to which this SAL is attached must be capable of sustaining static loads in directions applied by the personal fall arrest system of at least 3,600 lbs (or at least twice the expected dynamic load) with certification of a qualified person (architect, structural engineer, etc.), or 5,000 lbs in the absence of certification. If multiple personal fall arrest systems are being attached to the same anchorage, the minimum values stated above must be multiplied by the number of users.
- Keep lanyards as short as possible to minimize free fall distance.
- Free fall distance must not exceed 6 ft. at any time.
- Locate attachment point to the anchor at or above the connection point of the fall arrest equipment to the harness.

Connecting Shock Absorbing Lanyards that Have a Shock-Pack:

- The shock absorbing end of the lanyard must connect to the dorsal D-ring of the full body harness. The opposite end of the lanyard is to be connected to the anchorage connector.

Connecting Personal Shock Absorbers:

- Personal shock absorbers should be connected to the dorsal D-ring of the full body harness first, then connected to the rest of the fall arrest system.

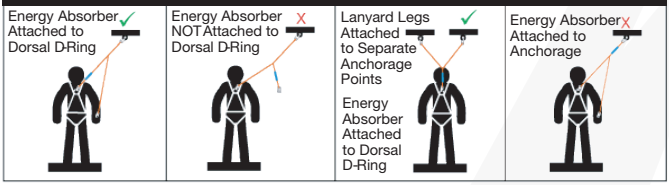
Connecting to Anchorage or Anchorage Connector:

- Connect energy absorber to end of the lanyard to the full body harness. Connect the other end of the lanyard to the anchorage or anchorage connector.
- **100% Tie Off Considerations:** Energy absorbing Y-type, twin leg or double lanyards can be used to provide continuous fall protection while moving. The worker can move to a new location while one lanyard leg is attached. Attach the free (unused) lanyard leg, then disconnect the attached leg. This procedure may be repeated as a new location is reached.
- Energy absorber portion of the lanyard must be connected to the Dorsal D-Ring only. **See Illustration 4.**
- Do not attach the energy absorber to the anchorage.
- Do not attach the free (unused) leg of the lanyard back to the harness at any location unless a specially designed lanyard keeper is provided for this purpose.
- Connection of both lanyard legs to separate anchorage points is acceptable.
- Never connect more than one person to a Y-type lanyard.
- Do not allow any lanyard to pass under arms or legs during use.

WARNING

If a shock absorbing lanyard is used with a cross-arm anchorage connector, other anchorage extension, horizontal lifeline, or extended D-ring, the additional length provided by these components must be taken into consideration during the clearance calculation process.

Illustration 4: Connecting to an Anchorage



WARNING

Do not connect the shock absorbing end of the lanyard to any anchorage connector.

Never attach the unused leg of the lanyard back to the harness at any location other than a lanyard storage keeper.

Connecting to a Self-Retracting Lifeline: Connecting an energy absorbing lanyard or component to a self-retracting lifeline is not recommended. Special applications exist where it may be permissible. Contact Malta Dynamics if considering connecting an energy absorbing lanyard to a self-retracting lifeline.

Knots: Knots of any kind are not approved in lanyards. Strength is drastically reduced by tie-offs using knots, tying around sharp edges, etc. Tie-offs using a knot in a rope lanyard (at any location) reduces the lanyard strength by 50 percent or more. Tie-off around an "H" or "I" beam can reduce the strength of lanyard by approximately 70 percent due to cutting action of beam edges.

Anchorage: Select a rigid anchorage point that is capable of sustaining the loads specified in **LIMITATIONS FOR USE** Section of this manual. For fall arrest applications, select anchorage locations that will minimize free fall and swing fall hazards. For restraint applications, locate the anchorages such that no vertical free fall is possible.

Free Fall: Maximum free fall distance allowed for use in a Personal Fall Arrest System is 6 ft. For use in a Restraint System, no vertical free fall is permitted. Do not work above the anchorage level to avoid increased free fall distance.

Fall Arrest Forces: The Personal Fall Arrest System must limit fall arrest forces to 900 lbs. Deceleration distance shall not be allowed to exceed 48 in.

Swing Falls: Minimize swing falls by working as directly below the anchorage point as possible. Do not permit a swing fall if injury could occur.

Fall Clearance: Clearance required is dependent upon the subsystem and lanyard properties. Energy absorbers can extend the fall arrest distance by up to 48 inches. Other factors may influence the required clearance distances. Use caution when assembling system components that could extend the fall arrest distance (and therefore fall clearance required). Consider the following when calculating fall clearance:

Clearance required is dependent on the following factors:

- Elevation of Anchorage
- Connecting Subsystem Length
- Deceleration Distance
- Free Fall Distance
- Worker Height
- Working Level See **Illustration 5**.
- D-ring / connector length
- Movement of Harness Attachment Element
- Length of Full Body Harness (FBH) Stretch

Illustration 5: Fall Clearance Considerations

A. Connecting Subsystems (Energy Absorbing Lanyard shown) Length + Movement of Harness Attachment + Length of FBH Stretch

B. Working Level (thickness)

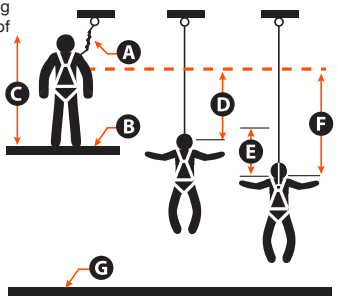
C. Worker Height + Connector Length

D. Free Fall - 6 ft. Max. (per ANSI Z359.1)

E. Deceleration Distance

F. Total Fall Distance: Sum of A through E

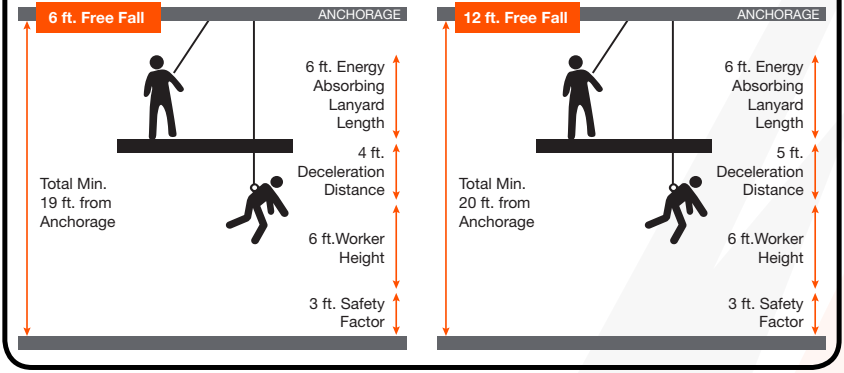
G. Lower Level or Obstruction



If there is a risk of fall or if the only anchorage point is below the attachment points on the harness, it is essential to use a lanyard provided with an energy absorber. Before using a shock absorbing lanyard, ensure that there is sufficient fall clearance below the user to prevent any collision with the structure or the ground.

Calculating Total Fall Distances:
Total Fall Clearance below worker is calculated from Anchorage Connection. Free Fall Distance + Working Level + Energy Absorber + Deceleration Distance + Worker Height + Connector Length + Safety Factor. Ensure that total fall distance is clear of obstructions and equipment. Avoid potential contact with a lower level. See **Illustration 6**.

Illustration 6: Calculating Total Fall Distance



Sharp Edges:
Avoid working where your lanyard or other system components will be in contact with, or abrade against, unprotected sharp edges.

Rescue:
The employer must have a rescue plan and the ability to implement it.

After a Fall is Incurred:
Components subjected to fall arrest forces must be removed from service immediately.

Making Connections:

- See **Illustration 1**. Ensure roll-out cannot occur when using a snap hook to connect components to an anchorage. Use self-locking snap hooks and carabiners to reduce the possibility of roll-out.
- Do not attach a snap hook directly to a horizontal lifeline.
- Follow manufacturer's instructions for each component of the system.

HARDWARE

Snap hooks and carabiners used on Malta Dynamics Shock Absorbing Lanyards marked with the ANSI Z359.1-07 and ANSI Z359.12-09 standard are self-locking with a minimal tensile break strength of 5,000 lb. and a 3,600 lb. gate rating.

TRAINING

Employers must provide training to any employee who may be exposed to fall hazards in order to enable the employee to recognize and reduce fall hazards. Training must be conducted by a Competent or Qualified Person. Trainer and trainees must not be exposed to fall hazards during the training course. This equipment is intended to be used by persons trained in its correct application and use.

INSPECTION

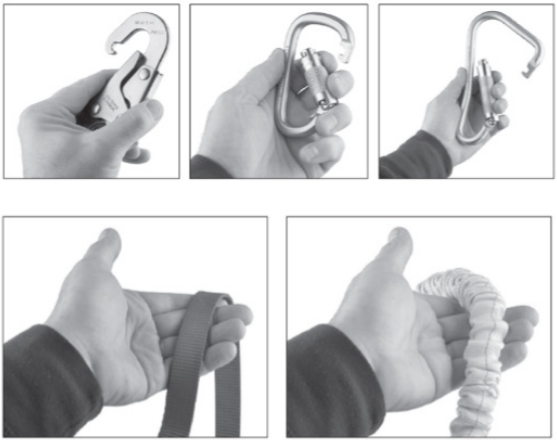
User must inspect this equipment and its components prior to each use. Additionally, equipment is to be inspected by a competent person other than the user in intervals not to exceed one year. Any equipment that has been subjected to the forces of arresting a fall must be removed from service immediately.

Note: Equipment must not be altered in any way, including attempted repair. Only manufacturer, or entities authorized in writing by the manufacturer, may make repairs to this product.

- Equipment must be free of corrosion, chemical degradation, excessive heat, or extreme wear.
- All markings must be legible and attached to the equipment.
- Inspect hardware (snap hooks, adjusters, thimbles, spreader bar, etc.)

for evidence of distortion, sharp edges, burrs, cracks, worn parts or corrosion.

- Make sure connecting snap hooks work correctly, move freely and lock upon closing.
- Snap hook gate spring provides tension to keep the snap hook gate closed in a locked position; snap hook must close flat and exhibit no sideways play. Ensure adjusters, if present, work properly.
- All webbing must be free of frayed or broken fiber, pulled stitches, tears, abrasions, mold, burns or discoloration.



- Inspect webbing and stitching by pressing to bend webbing over a 1½ inch diameter object. Webbing and stitching must be free of cuts, fraying or signs of wear.
- Shock absorbing devices must show no evidence of elongation or activation.
- Ensure energy absorber cover is not torn or damaged, and is securely in place.

If inspection reveals any defective condition, damage, or inadequate maintenance, remove from service immediately.

Any equipment that has been subjected to the forces of arresting a fall must be removed from service immediately.

Note: Only manufacturer, or entities authorized in writing by the manufacturer, may make repairs to the product. Otherwise, equipment must not be altered in any way.

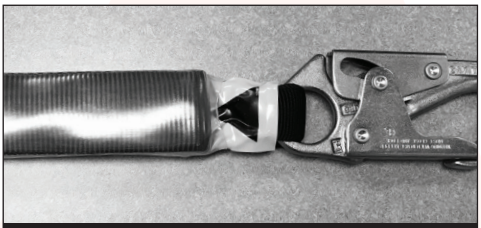
CLEANING AND STORAGE

Wipe off all surface dirt. Wash lanyard with a solution of water and mild detergent to clean away contaminants; wipe hardware dry with a clean cloth. Hang away from heat and allow to dry completely. Store in dry, clean environment away from direct sunlight, excessive heat, their vapors, moisture, oil, chemicals, or other degrading elements. Avoid storage in areas where chemical vapors may exist. Thoroughly inspect lanyard after extended storage.

FREQUENCY

- All equipment must be visually inspected prior to each use according to the manufacturer's instructions included at time of shipment. Inspections must be performed by a Competent Person other than the user (as defined by OSHA) a minimum of once per year. All equipment should be inspected by a Qualified Person on a regular basis. Extreme conditions, harsh environment or prolonged use may require more frequent inspections.
- All equipment must be free of corrosion, chemical attack, alteration, excessive heating, or extreme wear.
- All markings must be legible and attached to the equipment.
- Record the results of each formal inspection in your Hog Tracker account or inspection log.
- NOTE: Per Cal/OSHA PFAS must be inspected by a competent person at least twice a year, in accordance with the manufacturer's recommendations, with inspection dates documented.

Intact Load Indicators:



External Shock Absorber

Internal Shock Absorber

Deployed Load Indicators:

External Shock Absorber

Internal Shock Absorber

PRODUCT MARKINGS

The following labelling is affixed to product and must not be removed:

A

MALTA DYNAMICS
800-494-1840
210 13th Street | Malta, OH 43758
www.MaltaDynamics.com

MFG. DATE:
SERIAL#:
BATCH#:

SIZE: 6 FEET IN LENGTH

B

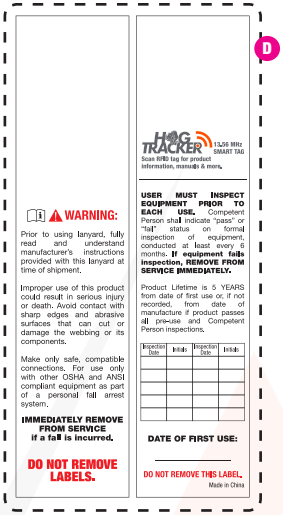
OSHA COMPLIANT
ANSI Z359.13-2013
OSHA 1926.502
ANSI Z359.13-2013
A10.32-2012

⚠ WARNING:
User MUST ensure that unused leg of lanyard is safely stored and does not cause obstructions.

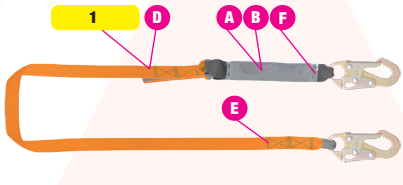
C

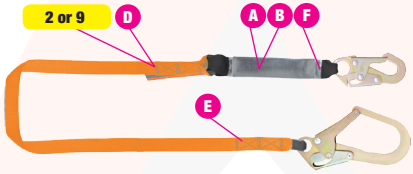
OSHA COMPLIANT
ANSI Z359.13-2013
OSHA 1926.502
ANSI Z359.13-2013
A10.32-2012

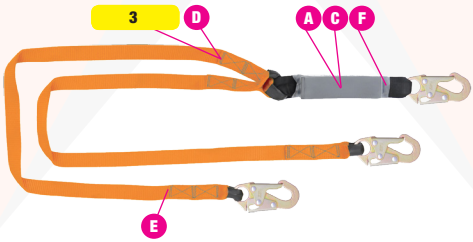
⚠ WARNING:
User MUST ensure that unused leg of Y lanyard is safely stored and does not cause obstructions.

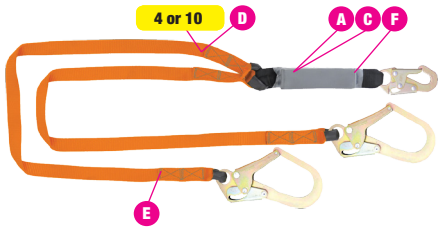


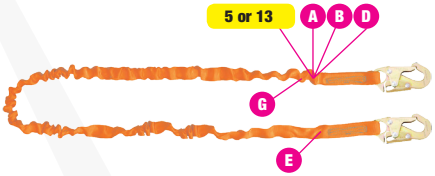
NOTE: The product graphics depicted may vary slightly from the actual product. These images are used solely to indicate general locations for where the labels are affixed.

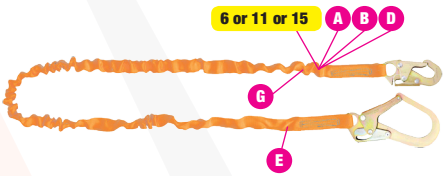


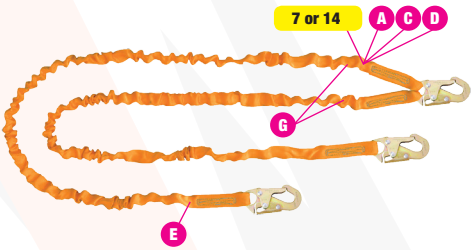


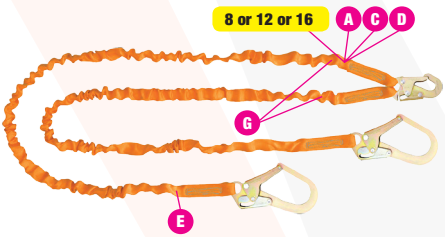












INSPECTION LOG

Date of Manufacture: _____

Model Name/#:_____

Serial: _____

Date of First Use: _____

Inspection Date	Items Noted	Corrective Action	Approved By

WARRANTY

THE FOLLOWING IS MADE IN LIEU OF ALL WARRANTIES OR CONDITIONS, EXPRESS OR IMPLIED, INCLUDING THE IMPLIED WARRANTIES OR CONDITIONS OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. Equipment offered by Malta Dynamics is warranted against factory defects in workmanship and materials for a period of one year from date of installation or first use by the original owner. LIMITED REMEDY: Upon notice in writing, Malta Dynamics will repair or replace all defective items at Malta Dynamics's sole discretion. Malta Dynamics reserves the right to require that the defective item be returned to its plant for inspection before determining the appropriate course of action. Warranty does not cover equipment damage resulting from wear, abuse, damage in transit, failure to maintain the product or other damage beyond the control of Malta Dynamics. Malta Dynamics shall be the sole judge of product condition and warranty options. This warranty applies only to original purchaser and is the only warranty applicable to this product. Please contact Malta Dynamics customer service department at 800-494-1840 for assistance. LIMITATION OF LIABILITY: IN NO EVENT WILL MALTA DYNAMICS BE LIABLE FOR ANY INDIRECT, INCIDENTAL, SPECIAL OR CONSEQUENTIAL DAMAGES INCLUDING, BUT NOT LIMITED TO LOSS OF PROFITS, IN ANY WAY RELATED TO THE PRODUCTS REGARDLESS OF THE LEGAL THEORY ASSERTED.

800-494-1840
MaltaDynamics.com
210 13th Street
Malta, OH 43758 USA