



**MALTA DYNAMICS**

FALL PROTECTION AND SAFETY EQUIPMENT

# **RESTRAINT LANYARD**

## **User Instruction Manual**

**This instruction manual applies to the following model:**

**C5200**

**Do not skip this instruction manual. Read the instruction manual carefully before using the equipment. If failed in doing so it may cause serious injury or death.**

Malta Dynamics 210 13th, Street Malta, Ohio 43758

This manual must be read and understood in its entirety and used as part of fall protection training program as required by OSHA or any state regularity agency. These instructions are intended to meet the manufacturer instructions as required by ANSI Z359 and OSHA . The user must fully understand the proper equipment use and limitations.

**The Instructions applies to the following Models:**

C5200

This manual is intended to meet industry standards, including OSHA and ANSI and should be used as part of an employee training program as required by OSHA.

**WARNING**

This product is part of a personal fall arrest, restraint, work positioning, suspension, or rescue system. A Personal Fall Arrest System (PFAS) is typically composed of an anchorage and a Full Body Harness (FBH), with a connecting device, i.e., a Shock Absorbing Lanyard (SAL), or a Self Retracting Device (SRD), attached to the dorsal ring of the FBH. These instructions must be provided to the user of this equipment.

The user must read and understand the manufacturer's instructions for each component or part of the complete system. Manufacturer's instructions must be followed for proper use, care, and maintenance of this product. These instructions must be retained and be kept available for the user's reference at all times.

Alterations or misuse of this product, or failure to follow instructions, may result in serious injury or death.

A Fall Protection Plan must be on file and available for review by all users. It is the responsibility of the user and the purchaser of this equipment to assure that users of this equipment are properly trained in its use, maintenance, and storage. Training must be repeated at regular intervals. Training must not subject the trainee to fall hazards.

When this equipment is in use the employer must have a rescue plan and the means at hand to implement it and communicate that plan to users, authorized persons, and rescuers.

Do not alter or intentionally misuse this equipment. Consult Malta Dynamics 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. Proceed with caution when using this equipment near moving machinery, electrical hazards, chemical hazards, and sharp edges.

Consult a doctor if there is reason to doubt your ability to safely absorb the shock of a fall event. Age and fitness seriously affect a worker's ability to withstand falls. Pregnant women or minors must not use this equipment.

NOTE: For more information see ANSI Z359.

## 1. DESCRIPTION

Malta Dynamics Restraint Lanyards are composed of various lengths of polyester webbing, polyester rope, or wire rope, with self closing/self locking active connectors at the ends. The anchorage end of the lanyards are equipped with snap hooks, and the attachment end may be a snap hook or a rebar hook. Malta Dynamics lanyards are ANSI Z359.3 2019 compliant and meet all OSHA regulations.

## 2. APPLICATION

**2.1 Purpose:** The Restraint Lanyard is intended for use on platforms, in aerial lifts and other areas to prevent personnel from reaching a fall hazard. Restraint systems are typically composed of a lanyard and a Full Body Harness (FBH), or a restraint belt. See Figure 2.

NOTE: If a fall hazard exists, the use of a back up Personal Fall Protection System (PFAS) is required.

**2.2 Restraint Anchorage Strength:** Anchorages selected for restraint, and travel restraint systems, shall have a strength able to sustain static loads applied in the directions permitted by the system of at least:

- a) 3,000 lbs. (13.3 kN) for non certified anchorages, or
- b) two times the foreseeable force for certified anchorages.

## 3. SYSTEM REQUIREMENTS

**3.1 Compatibility of Connectors:** 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 Malta Dynamics if you have any question about compatibility. Connectors must be compatible with the anchorage or other system components. Do not use equipment that is not compatible. Non compatible connectors may unintentionally disengage. Connectors must be compatible in size, shape, and strength. Self closing, self locking snap hooks and carabiners are required by ANSI and OSHA.



**3.2 Compatibility of Components:** Equipment is designed for use with approved components and subsystems only. Substitutions or replacements may only be made by a competent person.

**3.3 Making Connections:** Only use self locking snap hooks and carabiners with this equipment. Only use connectors that are suitable to each application. Ensure all connections are compatible in size, shape and strength. Do not use equipment that is not compatible. Visually ensure all connectors are fully closed and locked. Connectors (snap hooks and carabiners) are designed to be used only as specified in each product's user's instructions. See Figure 3.

## 4. DO NOT:

- attach multiple snap hooks or carabiners to an anchorage.
- attach snap hooks or carabiners in a manner that may result in the gate being loaded.
- allow a false engagement, where features that protrude from the snap hook or carabiner catch on the anchor.
- attach snap hooks or carabiners to each other.
- attach snap hooks or carabiners to webbing or rope lanyard or tie back (unless the manufacturer's instructions for both the lanyard and connector specifically allows such a connection).
- attach snap hooks or carabiners 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.

**4.1 Definitions:** The following are definitions of terms.

**Authorized Person:** A person assigned by the employer to perform duties at a location where the person will be exposed to a fall hazard (otherwise referred to as "user" for the purpose of these instructions).

**Certified Anchorage:** An anchorage for fall arrest, positioning, restraint, or rescue systems that a qualified person certifies to be capable of supporting the potential fall forces that could be encountered during a fall or that meet the criteria for a certified anchorage prescribed in ANSI Z359.

**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.

**Qualified Person:** A person with a recognized degree or professional certificate and with extensive knowledge, training, and experience in the fall protection and rescue field who is capable of designing, analyzing, evaluating and specifying fall protection and rescue systems to the extent required by ANSI Z359.

Rescuer: Person or persons other than the rescue subject acting to perform an assisted rescue by operation of a rescue system.

**4.2 100% Tie-Off Applications:** Y leg configurations are designed to provide the user 100% tie off capability. When using Y leg lanyard configurations, take appropriate caution when moving from one anchorage to another. At least one leg must be anchored at all times. Two point tie off should only be maintained for the limited time needed to make the transition to the new anchor point. Attach the unused lanyard legs to the harness on approved lanyard parking attachments that are specifically designed for such.

Use of this equipment in areas containing physical or environmental hazards may require that additional precautions be taken to reduce the possibility of damage to this equipment or injury to the user. Hazards may include, but are not limited to: high heat, strong or caustic chemicals, corrosive environments, the possibility of electric current flowing through this equipment when working near high voltage power lines, explosive or toxic gases, moving machinery, severe cold, or sharp edges.

Contact Malta Dynamics if you have any questions about the application of this equipment in areas where physical or environmental hazards are present. This equipment is intended to be installed and used by persons who have been properly trained in its correct application and use.

## 5. INSTALLATION AND OPERATION

**NOTE:** Take caution on steep slopes or any surface where a fall hazard may exist.

**5.1 Inspect This Equipment:** Inspect this equipment thoroughly before each use according to the instructions in Section 7 of this manual.

**5.2 Review the Task:** Take note of fall hazards and potential fall hazards, obstructions, and anchorages.

**5.3 Attach to Body Wear:** Don the harness or restraint belt in accordance with the harness manufacturer's instructions. Attach the hook at the label end of the lanyard to an approved D-ring on the FBH or restraint belt. Visually ensure the snap hook closes and locks properly. Attach the other end of the lanyard to an approved restraint anchorage. See Figure 4.

**5.4 Y-leg lanyard:** With the attachment hook properly attached to the body wear, attach one leg of the Y-leg lanyard to the approved anchorage. Connect the other leg to the parking element on the FBH to safely store it. Consult harness instructions if necessary.



**5.4.1 Y-leg 100% Tie-Off:** To accomplish 100% tie-off, attach one leg of the Y-leg lanyard to an approved anchorage point (A). Move to another location. Attach the other leg to another anchorage (B). Disconnect from anchorage (A), and store the leg on the park element on the FBH. Move to the next anchorage point, and connect the idle leg to the next anchorage. (C) Repeat as necessary. Be aware of the following:

**DO NOT** connect more than one person at a time to the Y-Leg system  
**DO NOT** allow the Lanyard legs to become tangled or twisted together.  
**DO NOT** allow any lanyard to pass under arms or between legs during use.  
**DO NOT** loop the lanyard around small diameter structures and tie-back to the lanyard.

## 6. SPECIFICATIONS

**6.1 Capacity:** The maximum capacity of the lanyards is 310 lbs. (140.6 kg).

NOTE: To maintain ANSI Z359 compliance, limit total user weight to no more than 310 lbs., (140.6 kg).

## 7. MAINTENANCE, SERVICE AND STORAGE

Clean the polyester lanyard with a warm water and mild detergent solution. Wipe the wire rope lanyard with a clean dry cloth.

**DO NOT** use bleach or bleach solutions. Dry hardware with a clean, dry cloth, and hang to air dry.

**DO NOT** use a power washer or dry with heat in a laundry dryer.

**DO NOT** attempt to disassemble the unit. A buildup of dirt, solvents, paint, etc. may prevent the lanyard from working properly, and in severe cases degrade the webbing. If you have questions concerning the condition of your lanyard, remove it from service and contact Malta Dynamics.

Store lanyards in a cool, dry, clean environment out of direct sunlight. Avoid areas where heat, oil, chemicals or their vapors may exist. Thoroughly inspect the lanyard after extended storage.

## 8. INSPECTION

**8.1 Mandatory Inspection:** ANSI Z359 requires that fall protection equipment be inspected by a competent person other than the user at least once every six months. Harsh conditions may accelerate wear and corrosion and require more frequent inspections.

**8.2 Inspection Procedure:** Inspect all webbing (straps) and stitching for:

1. cuts and fraying
2. pulled or broken threads
3. abrasion
4. excessive wear
5. burns, heat and chemical degradation



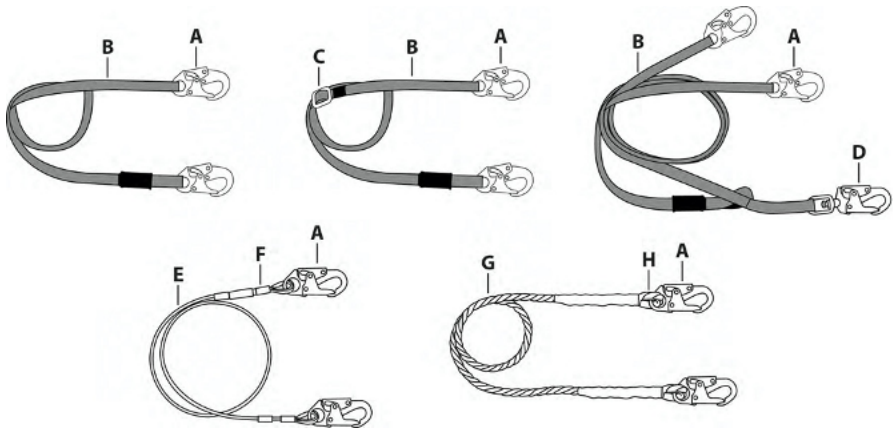
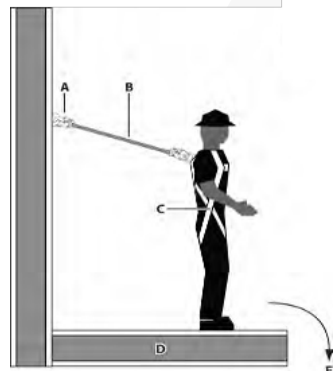


Figure 1: About Restraint Lanyards

A	Alloy Steel Snap Hook
B	1" Polyester Webbing
C	Adjuster Buckle
D	Swivel Snap Hook
E	1/4" Galvanized Wire Rope
F	Dual Aluminum Ferrules
G	5/8" 3-strand Polyester Rope
H	Carbon Steel Thimble

Figure 2: Restraint

A	Restraint Anchor
B	Restraint Lanyard
C	Full Body Harness (FBH)
D	Walking/Working Surface
E	Fall Hazard Area





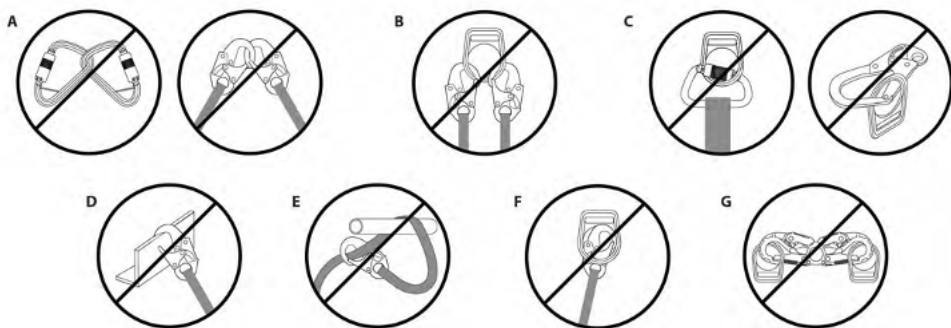


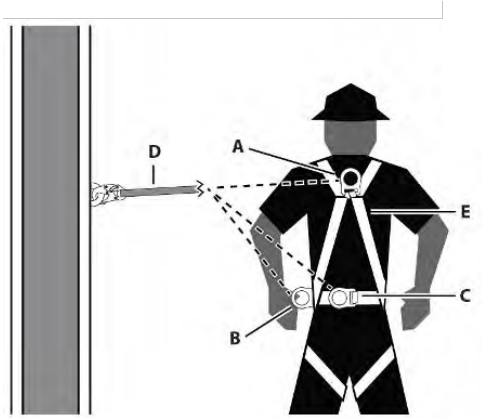
Figure 3: Incorrect Connections

A	Never connect two active components (snap hooks or carabiners) to each other.
B	Never connect two active components (snap hooks or carabiners) to a single D-ring at the same time.
C	Never connect in a way that would produce a condition of loading on the gate.
D	Never attach to a object in a manner whereby the gate (of the snap hook or carabiner) would be prevented from fully closing and locking. Always guard against false connections by visually inspecting for closure and lock.
E	Never attach explicitly to a constituent subcomponent (webbing, cable or rope) unless specifically provided for by the manufacturer's instructions for both subcomponents (snap hook or carabiner and webbing, cable or rope).
F	Never attach in a manner where an element of the connector (gate or release lever) may become caught on the anchor thereby producing additional risk of false engagement.
G	Never attach a spreader snap hook to two side/positioning D-rings in a manner whereby the D-rings will engage the gates; the gates on a spreader must always be facing away from the D-rings during work positioning.

Figure 4: Suitable Attachment Methods for Restraint

A	Connection to Dorsal D-Ring on Harness
B	Connection to Side D-Ring on Harness
C	Connection to Lumbar D-Ring on Restraint Belt
D	Restraint Lanyard
E	Full Body Harness (FBH)





Acronyms for Fall Protection and Fall Arrest; ANSI Z359.0-2012

ACTD	Activation Distance	HLL	Horizontal Lifeline
AD	Arrest Distance	MAF	Maximum Arrest Force
CSS	Connecting Subsystem	mm	Millimeter
DD	Deceleration Distance	PFAS	Personal Fall Arrest System
DDV	Deceleration Device	PPE	Personal Protective Equipment
FACSS	Fall Arrestor Connecting Subsystem	SRD	Self-retracting Device
FAS	Fall Arrest System	TFD	Total Fall Distance
FBH	Full Body Harness	VLL	Vertical Lifeline
FF	Free Fall		Vertical Lifeline Subsystem
FFD	Free Fall Distance	WPS	Work Positioning System

Other Acronyms for Fall Protection and Fall Arrest

RGLS	Rope Grab Lanyard Set	ANSI	American National Standards Institute
SAL	Shock Absorbing Lanyard	OSHA	Occupational Safety and Health Administration
cm	Centimeters	ASTM	American Society for Testing and Materials
kN	kilo-Newton	lbs	pounds (weight)
RPA	Rebar Positioning Assembly	TPA	Tower Positioning Assembly

## CHECK CARD

It is recommended that the lanyard be inspected and examined by a competent person for any damages or failures if the need arises, but at least once a year. The observations should be recorded in the table below. In case such damages are observed, the lanyard should be replaced immediately.

The instructions for use for the individual components are to be observed.

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.



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