

User Instructions

MSA Restraint Lanyard



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WARNING!

These instructions must be provided to users before use of the product and retained for ready reference by the user. Read this manual carefully before using or maintaining the device. The device will perform as designed only if it is used and maintained in accordance with the manufacturer's instructions. Otherwise, it could fail to perform as designed, and persons who rely on this device could sustain serious injury or death.

The warranties made by MSA with respect to the product are voided if the product is not installed and used in accordance with the instructions in this manual. Please protect yourself and your employees by following the instructions.

Please read and observe the WARNINGS and CAUTIONS inside. For additional information relative to use or repair, call 1-800-MSA-2222 during regular working hours.

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The Safety Company

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1 Correct Use

NOTE: For a full set of warnings related to MSA WinGrip systems, reference user manuals P/Ns 15000-96 and 15000-97.



WARNING!

- MSA Lanyards are to designated and used solely for approved applications.
- All procedures must be completed in conjunction with local safety rules.
- The maximum User weight (including tools and equipment) is 310 lbs (140 kg).
- This MSA restraint lanyard shall be set up in such a manner that it allows a person to approach the edge but eliminates any possibility of falling. DO NOT use this lanyard if a fall could occur.
- The anchorage must be capable of supporting the required load. See MSA WinGrip User Instructions (P/Ns 15000-96 and 15000-97) for details on anchorage requirements.
- Keep work area free from debris, obstructions, trip hazards, spills or other hazards which could impair the safe operation of the fall restraint system. DO NOT use the lanyard unless a qualified person has inspected the workplace and determined that identified hazards can neither be eliminated nor exposures to them prevented.
- A full body harness is the only acceptable body holding device that can be used in a fall restraint system.
- MSA Fall Protection products may not be used while under the influence of drugs or alcohol.
- DO NOT rely on feel or sound to verify proper snaphook or carabiner engagement. Ensure that gate and keeper are closed before use.
- Use only for the fall restraint of one person.
- DO NOT leave the Restraint Lanyard installed in environments which could cause damage or deterioration to the product. Refer to sections [9 Care, Maintenance, and Storage](#) and [11 Inspection](#) for care and inspection details. Do not leave unattended loads on the MSA lanyard.
- DO NOT use where lanyard may be exposed to any edges as this could cause the lanyard to wear and fail to provide restraint.
- Chemical hazards, heat and corrosion may damage the Restraint Lanyard. More frequent inspections are required in these environments.
- Avoid using the Restraint Lanyard adjacent to moving machinery, electrical hazards or abrasive surfaces or in the presence of excessive heat, open flame or molten metal. DO NOT use in environments with temperatures greater than 113°F (45°C).
- DO NOT use the Restraint Lanyard near energized equipment or where contact with high voltage power lines may occur. Metal components of the Restraint Lanyard may provide a path for electrical current to flow, resulting in an electrical shock or electrocution.
- Remove any surface contamination such as, but not limited to, concrete, stucco, roofing material, etc. that could accelerate cutting or abrading of attached components.
- DO NOT use the Restraint Lanyard for work positioning or to support either partial or full body weight. A separate work positioning system must be utilized.
- DO NOT alter this equipment or intentionally misuse it. DO NOT use fall protection equipment for purposes other than those for which it was designed. DO NOT use fall protection equipment for towing, hoisting or material handling.
- Only MSA or persons or entities with written authorization from the manufacturer may make repairs to the Restraint Lanyard. No unauthorized repairs, modifications, alterations and/or additions are permitted.
- If PPE is resold, it is essential that instructions for use, maintenance, and periodic examination are provided in the language of destination.
- **RESCUE AND EVACUATION:** the user must have a rescue plan and the means at hand to implement it. The plan must take into account the equipment and specific training necessary to affect prompt rescue under all foreseeable conditions. If the rescue be from a confined space, the provisions of OSHA regulation 1910.146 and ANSI Z117.1 must be taken into account. It is recommended to provide means for user evacuation without assistance of others. This will usually reduce the time to get to a safe place and reduce or prevent the risk to rescuers.

Failure to follow these warnings can result in serious personal injury or death.

2 Specifications

Compliance	US: ASSP / ANSI Z359.6 per MSA Technical Bulletin TB076 The product may comply with standards shown. See product label for specific compliance notifications. Those designated with a certification mark are listed with the corresponding agency as compliant to at least one of the standards shown.
Snaphooks	Aluminum or zinc plated steel. Single-hand operation, auto close and lock
Adjusters	Zinc plated steel
Carabiners	Steel or aluminum
Minimum Breaking Strength (MBS)	
Snaphooks	5,000 lbf (22.2 kN), p roof tested to 3,600 lbf (16 kN)
Weight Capacity	See product label for specific information. A summary of these specifications is provided in Table 1

Table 1 Standards Met

Standard Met	Weight Capacity Range	Allowable Free Fall
Restraint lanyards (without energy absorber) ANSI Z359.6	Up to 400 lbs (181 kg)	0 ft (0 m)

Table 2 Materials

Materials	Kernmantle nylon rope
	7/16" (11.0mm)
Terminations	Stitched
Weight (approx.)	1.5 lbs (680 g)

3 Training

Purchasers of MSA Lanyards must ensure that users are familiar with the User Instructions and are trained by a competent person in:

- workplace hazard identification, evaluation and control
- selection, inspection, use, storage and maintenance
- usage planning including restraint adjustment to prevent a fall from occurring
- compatibility and selection of anchorage/anchorage connectors including connection to help prevent accidental disengagement (rollout)
- proper lanyard/harness connection locations
- evacuation and rescue planning and implementation
- consequence of improper use including risk of serious injury or death if a fall occurs on a restraint lanyard

Training must be conducted without undue exposure of the trainee to hazards.

4 Description and Application

4.1 Purpose of Restraint Lanyard

Use with MSA WinGrip

This single-leg and twin-leg restraint lanyard is designed to only be used with the MSA WinGrip. For proper use of a WinGrip system, consult the WinGrip manual. Do not use this lanyard for any other application than as a restraint lanyard on a WinGrip system.

Restraint

A restraint lanyard is designed to connect a worker to an anchorage and is part of a restraint system. This MSA restraint lanyard shall be adjusted in such a manner that it allows a person to approach the edge but eliminates any possibility of falling. The lanyard needs readjusted when the user moves to a new anchor. DO NOT use this lanyard if a fall could occur. If a fall can occur, a lanyard with energy absorbing capabilities must be used.

Twin Leg Lanyard

Twin leg lanyards allow continuous connection (tie-off) while the user moves between anchorage locations. A restraint lanyard allows tie-off at two points at the same time, as long as it is used to position a user so that they cannot reach a fall hazard. Twin leg lanyards with an energy absorber should never be tied off to two anchors, except during transitions.

5 Selection

5.1 Physical Limitations

The lanyard is designed for one user whose weight, including clothing, tools, and other user-borne objects is less than the capacity shown on the product label. Users with muscular, skeletal, or other physical conditions should consult a physician before using. Increasing age and lowered physical fitness may affect a person's ability to use this product. Consult a physician if there is any question about physical ability to safely use this product. Pregnant women and minors must never use this lanyard.

5.2 Environment

Chemical hazards, heat and corrosion may damage the lanyard. More frequent formal inspections are required in environments with chemical hazards, heat and corrosion. Do not use in environments with temperatures greater than 113°F (45°C). Use caution when working around electrical hazards, moving machinery, abrasive surfaces, and sharp edges.

Table 3 Chemicals

Chemical	Resistance		
	Nylon	Polyester	Galvanized Steel
Strong acid (dilute)	Poor	Good	Poor
Strong acid (conc.)	Poor	Fair*	Poor
Weak acid (dilute)	Poor	Good	Poor
Weak acid (conc.)	Poor	Good	Poor
Strong alkali (dilute)	Good	Poor	Poor
Strong alkali (conc.)	Fair	Poor	Poor
Weak alkali (dilute)	Good	Fair	Fair
Weak alkali (conc.)	Good	Poor	Poor
Alcohol	Good	Fair	Good
Aldehyde	Good	Poor	Good

Chemical	Resistance		
	Nylon	Polyester	Galvanized Steel
Ether	Good	Poor	Good
Halogenated hydrocarbons	Good	Good	Good
Phenols	Poor	Poor	Good
Bleaching agents	Poor	Good	Poor
Ketones	Good	Poor	Fair
Lubricating oils and greases	Good	Good	Good
Soaps and detergents	Good	Good	Good
Seawater	Good	Good	Poor
Aromatic solvents	Good	Poor	Good

* Concentrated sulfuric acid attacks polyester.

6 System Requirements

6.1 Compatibility of System Parts

6.1.1 Compatibility of Components and Subsystems

NOTE: This product must only be used with the WinGrip. For additional usage information, see WinGrip instruction manual (P/Ns 15000-96 and 15000-97).

MSA Lanyards are designed to be used with MSA approved components and connecting subsystems. Use of MSA Lanyards with products made by others that are not approved in writing by MSA may adversely affect the functional compatibility between system parts and the safety and reliability of the complete system. Connecting subsystems must be suitable for use in the application (e.g. restraint). MSA produces a complete line of connecting subsystems for each application. Contact MSA for further information. Refer to the manufacturer's instructions supplied with the component or connecting subsystem to determine suitability. Contact MSA with any questions regarding compatibility of equipment used with the lanyard.

6.1.2 Compatibility of Connectors

Connectors, such as D-Rings, snaphooks, and carabiners, must be rated at 5,000 LBF (22 kN) minimum breaking strength. MSA connectors meet this requirement. Connecting hardware must be compatible in size, shape, and strength. Non compatible connectors may accidentally disengage ("rollout"). When using a snaphook to connect to an anchorage or when coupling components of the system together, be certain accidental disengagement ("rollout") cannot occur. Rollout is possible when interference between a snaphook and the mating connector causes the snaphook's gate or keeper to accidentally open and release. Rollout occurs when a snaphook is snapped into an undersized ring such as an eye bolt or other noncompatibly shaped connector. Always verify compatibility of the connecting snaphook or carabiner with harness D-Ring or anchorage connector. Use only self-closing, self-locking snaphooks or carabiners with the harness.

Use only self-closing, self-locking snaphooks and carabiners to reduce the possibility of rollout. Do not use snaphooks or connectors that will not completely close when attached.

- Do not tie knots in a lanyard.
- Do not hook the lanyard to itself.
- Do not connect snaphooks and carabiners to each other.
- Do not connect two (2) snaphooks to one (1) D-ring.



WARNING!

DO NOT rely on feel or sound to verify proper snaphook engagement. Always check visually for proper engagement. Ensure that gate and keeper are closed before use. Make only compatible connections. See section [6 System Requirements](#) for limitations and compatibility. Using combinations of components or subsystems which are not approved may affect or interfere with the safe function of each other.

Failure to follow this warning can result in serious personal injury or death.

6.2 Anchorages and Anchorage Connectors

Anchorage and connectors must be capable of supporting a static load, applied in each direction permitted by the system, of at least 5,000 lbf (22.2 kN).

7 Planning the Use of Systems

7.1 Rescue and Evacuation



WARNING!

The user must have a rescue plan and the means at hand to implement it. The plan must take into account the equipment and specific training necessary to affect prompt rescue under all foreseeable conditions. If the rescue be from a confined space, the provisions of OSHA regulation 1910.146 and ANSI Z117.1 must be taken into account. It is recommended to provide means for user evacuation without assistance of others. This will usually reduce the time to get to a safe place and reduce or prevent the risk to rescuers.

Failure to follow this warning can result in serious personal injury or death.

8 Use



WARNING!

Complete pre-use inspection before every use of this lanyard. If the lanyard is damaged or does not pass inspection, immediately remove it from service and tag "UNUSABLE" until it has been destroyed.

Failure to follow this warning can result in serious personal injury or death.

Restraint Lanyard

Connect one end to a suitable anchorage and the other end to the back D-Ring of an approved full body harness.

Twin Leg Lanyard

Connect the middle snaphook of the twin leg lanyard to the back D-ring of an approved full body harness. Connect the snaphooks on the ends of the lanyard legs to suitable approved anchorages. Connect the snaphook at the end of one leg to an initial anchorage. Connect the snaphook at the end of the other leg to a secondary anchorage before moving and/or disconnecting from the initial anchorage.



WARNING!

- When using a twin leg, connect the center-mounted snaphook to the harness back D-Ring.
- DO NOT connect the snaphooks on the ends of the lanyard leg to your body support.
- Maintain tie-off while moving between anchorage locations.
- DO NOT disconnect from your initial position until you have first connected to another anchorage.
- When one leg is not in use, only attach to lanyard keeper on harness or store in the provided WinGrip lanyard storage pouch.
- Always make sure that the restraint lanyard is adjusted in a way that the user cannot reach the edge or fall hazard. The restraint lanyard may need adjusted when moving from one anchor to another.
- DO NOT allow lanyard legs to pass under arms, between legs or around neck.

Failure to follow these warnings can result in serious personal injury or death.

9 Care, Maintenance, and Storage

9.1 Cleaning

Clean the lanyard with a solution of water and mild laundry detergent. Do not use chemicals, harsh detergents or pressure washers. Rinse with clear water. Dry hardware with a clean cloth and hang to air dry. Do not speed dry with heat. Excessive accumulation of dirt, paint or other foreign matter may prevent proper function of the lanyard, and, in severe cases, weaken the webbing. Contact MSA with questions concerning lanyard conditions and cleaning.

9.2 Maintenance and Repairs

 **WARNING!**

Only MSA or parties with written authorization from MSA may repair the lanyard. Do not attempt to repair or alter an MSA Lanyard.

Failure to follow this warning can result in serious personal injury or death.

Tag damaged equipment or equipment needing maintenance as “UNUSABLE” and remove from service. Repair and maintenance (other than cleaning) must be performed by MSA. Do not attempt to repair an MSA lanyard. The moving parts of snaphooks and carabiners may require periodic lubrication with low viscosity penetrating oil. Follow lubricant manufacturer’s instructions. Do not over-lubricate. Wipe excess with a clean, dry cloth.

9.3 Storage

Store the lanyard in a cool, dry and clean place out of direct sunlight. Avoid areas where heat, moisture, light, oil, and chemicals or their vapors or other degrading elements may be present. Equipment which is damaged or in need of maintenance should not be stored in the same area as usable equipment. Heavily soiled, wet, or otherwise contaminated equipment should be properly maintained (e.g. dried and cleaned) prior to storage. Prior to using equipment which has been stored for long periods of time, a formal inspection (see 11.2 Formal Inspection) should be performed by a competent person.

10 Markings and Labels

All labels must be present, legible and securely attached.

NOTE: Label may be located on user end or anchorage end, depending on configuration. Label may be under a protective cover.


The Safety Company
PRODUCT NAME
DO NOT REMOVE THIS LABEL

 **WARNING**
Read and heed all instructions in user manual supplied with lanyard. Make only compatible connections. This product is NOT suitable for Fall Arrest. Failure to follow these warnings can result in serious injury or death.

MODEL
MATERIAL
APPLICABLE STANDARD
CAPACITY

LENGTH
SERIAL NUMBER
DATE MADE
Made in COUNTRY

224 Rev. 0 10235797

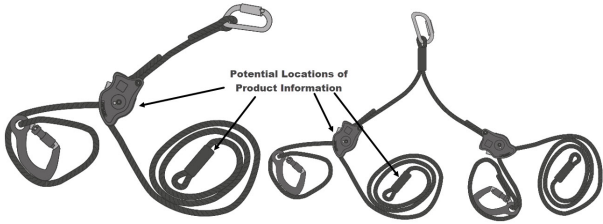
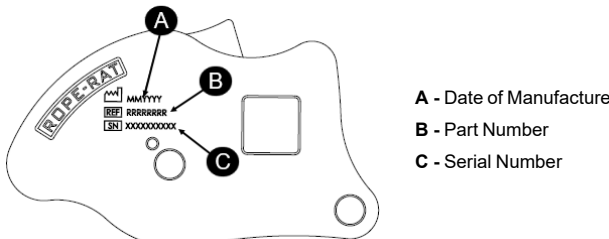


Figure 1 Single Leg Model

Figure 2 Twin Leg Model

 **WARNING!**

Do not remove or alter labels.

Failure to follow this warning can result in serious personal injury or death.

11 Inspection

11.1 Inspection Frequency

Inspect the lanyard before each use.

11.2 Formal Inspection

MSA requires that all lanyards be inspected by a competent person other than the user at intervals of no more than six (6) months per applicable standard or as specified by a formal fall protection program. Record formal inspections in the provided Inspection Log. Punch or indelibly mark the Inspection grid attached to the lanyard. Do not use a lanyard with a formal inspection date older than six (6) months. Tag lanyards with formal inspection dates older than six (6) months "UNUSABLE" and remove from service until after formal inspection.

11.3 Inspection Procedure

Perform the following steps in order. If in doubt about any inspection point, consult MSA or a competent person qualified to perform formal inspection. Do not use the lanyard if inspection of it reveals an unsafe condition.

- Step 1:

Inspect the lanyard labels to verify that they are present and legible. Check the formal inspection grid to be sure a formal inspection has been performed within six (6) months.
- Step 2:

Inspect for elongation and/or separation of rope layers and/or appearance of webbing outside the pouch.
- Step 3:

Inspect all fabric parts, including rope and stitching. Remove the lanyard from service if significant fraying, severe wear, cuts, burns, abrasion, discoloration or other damage occurs.
- Step 4:

Inspect all metallic parts for evidence of damage, alteration and missing parts.

- Inspect snaphooks for deformation, fractures, cracks, corrosion, deep pitting, burrs, sharp edges, cuts, loose parts, and evidence of excessive heat or chemical exposure.
 - Check snaphook function. Unlock, open, close, and lock several times. Gate must automatically close and snugly seat against nose. The locking mechanism must retain the gate tip within 1/8 inch (3 mm) of the nose when firm pressure is applied to the gate.
- Step 5:

Inspect all plastic parts for cuts, breaks, alteration, excessive wear, missing and loose parts. Inspect for evidence of burns, excessive heat or chemical attack.
- Step 6:

Inspect each component and subsystem of the complete system in accordance with the associated manufacturer's instructions.

11.4 Corrective Action

Damage, excessive wear, and aging are generally not repairable. Tag damaged or excessively worn lanyards "UNUSABLE" and remove from service immediately. Destroy unusable lanyards.

11.5 Inspection Log

Model No.:

Inspector:

Serial No.:

Inspection Date:

Date Made:

Disposition:

Comments:

12 Warranty

Express Warranty – MSA warrants that the product furnished is free from mechanical defects or faulty workmanship for a period of one (1) year from first use or eighteen (18) months from date of shipment, whichever occurs first, provided it is maintained and used in accordance with MSA's instructions and/or recommendations. Replacement parts and repairs are warranted for ninety (90) days from the date of repair of the product or sale of the replacement part, whichever occurs first. MSA shall be released from all obligations under this warranty in the event repairs or modifications are made by persons other than its own authorized service personnel or if the warranty claim results from misuse of the product. No agent, employee or representative of MSA may bind MSA to any affirmation, representation or modification of the warranty concerning the goods sold under this contract. MSA makes no warranty concerning components or accessories not manufactured by MSA, but will pass on to the Purchaser all warranties of manufacturers of such components. This warranty is in lieu of all other warranties, express, implied or statutory, and is strictly limited to the terms hereof. MSA specifically disclaims any warranty of merchantability or fitness for a particular purpose.

Exclusive Remedy – It is expressly agreed that the Purchaser's sole and exclusive remedy for breach of the above warranty, for any tortious conduct of MSA, or for any other cause of action, shall be the repair and/or replacement, at MSA's option, of any equipment or parts thereof, that after examination by MSA are proven to be defective. Replacement equipment and/or parts will be provided at no cost to the Purchaser, F.O.B. Purchaser's named place of destination. Failure of MSA to successfully repair any nonconforming product shall not cause the remedy established hereby to fail of its essential purpose.

Exclusion of Consequential Damages – Purchaser specifically understands and agrees that under no circumstances will MSA be liable to Purchaser for economic, special, incidental, or consequential damages or losses of any kind whatsoever, including but not limited to, loss of anticipated profits and any other loss caused by reason of the non-operation of the goods. This exclusion is applicable to claims for breach of warranty, tortious conduct or any other cause of action against MSA.

For additional information please contact the Customer Service Department at 1-800-MSA-2222 (1-800-672-2222).



*For local MSA contacts, please visit us at **MSAsafety.com***