

User Instructions

MSA Anchorage Connector Extension

**Model Number / Numero de modelo /
Numero de modele**



Doc./Mat.: 10110985/02
Print Spec.: 10000005389 (F)
CR 800000034253



WARNING!

National standards and state, provincial and federal laws require the user to be trained before using this product. Use this manual as part of a user safety training program that is appropriate for the user's occupation. These instructions must be provided to users before use of the product and retained for ready reference by the user. The user must read, and understand (or have explained), and heed all instructions, labels, markings and warnings supplied with this product and with those products intended for use in association with it. **FAILURE TO DO SO MAY RESULT IN SERIOUS INJURY OR DEATH.**



The Safety Company

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For your local MSA contacts please go to our website www.MSAafety.com

1 Safety Regulations

1.1 Correct Use

An anchorage connector extension is intended to be used as a link between an anchorage connector and most fall arrest systems, restraint systems, or rescue systems. Manufactured with high quality, high tensile strength galvanized steel cable, MSA Anchorage Connector Extension provides the ability to extend the anchor connection point to an easily accessible position.

When in doubt of the method of operation, maintenance or inspection procedures, DO NOT USE.

1.2 Compliance

The product may comply with:

- ANSI Z359.18, Type A and / or;
- OSHA requirements

See product label for specific compliance notifications.

Anchorage connectors labeled with ANSI Z359.18 have been tested in compliance with the requirements of ANSI/ASSE Z359.7.



CAUTION!

ANSI compliance and testing covers only the hardware and does not extend to the anchorage and substrate to which the anchorage connector is attached.

1.3 Usage Specifications

- When used according to instructions will exceed the required minimum breaking strength of 5000 lbs (22.2kn)
- Only one (1) person shall use the MSA Anchorage Connector Extension at one time. This anchorage connector extension can also be used with approved systems.
- An approved anchorage structure shall be secured and capable of supporting a minimum 5,000 lbs. (22kN) per user.
- MSA Anchorage Connector Extensions are intended to be used as an extension of the anchorage connector only.
- Remove the MSA Anchorage Connector Extension from service immediately if the product has been exposed to fall arrest forces.

1.4 Safety and Precautionary Measures



WARNING!

- ▶ DO NOT exceed the allowable free fall distance or exceed the maximum fall arrest forces as specified by governing standards or subsystem components.
- ▶ The anchorage to which the MSA Anchorage Connector Extension is attached must be rated in the direction of intended use. See sections 2.2 "Anchorages and Anchorage Connectors" and 3 "Use" for details on anchorage strength and loading details.
- ▶ When installing or removing the MSA Anchorage Connector Extension, limit exposure to fall hazards. A separate independent fall arrest system may be required.
- ▶ Ensure that fall clearance is sufficient to meet governing standards or subsystem component requirements.
- ▶ Fall clearance and free fall limits must take into account the additional length that the Anchorage Connector Extension adds to the lanyard length.
- ▶ DO NOT use the MSA Anchorage Connector Extension unless a qualified person has inspected the workplace and determined that identified hazards can neither be eliminated nor exposures to them prevented.

Safety Regulations

- ▶ Use the MSA Anchorage Connector only in conjunction with an appropriate anchor to extend the anchor location. Do not use the MSA Anchorage Connector as a stand-alone anchor, in tie-back or wrap around applications or where the cable could contact an edge.
- ▶ Work directly under the anchorage/anchorage connector at all times. A full body harness is the only acceptable body holding device that can be used in a fall arrest system.
- ▶ DO NOT rely on feel or sound to verify proper snaphook or carabiner engagement. Ensure that gate and keeper are closed before use.
- ▶ If the MSA Anchorage Connector Extension is damaged or is subjected to fall arrest forces or impact forces, it must be immediately removed from service and marked as "UNUSABLE" until it has been destroyed.
- ▶ DO NOT leave the MSA Anchorage Connector Extension installed in environments which could cause damage or deterioration to the product. Refer to sections 4 "Care, Maintenance, and Storage" and 5 "Inspection" for care and inspection details. Do not leave unattended loads on the MSA Anchorage Connector Extension.
- ▶ DO NOT use where the MSA Anchorage Connector Extension, lanyard or shock absorber may be exposed to sharp or abrasive edges or sheared, expanded metal, or frame cut steel. Sharp edges may cut MSA Anchorage Connector Extension, lanyard or shock absorber during a fall. Cover all sharp or abrasive edges with padding or sheathing before working above edge.
- ▶ Chemical hazards, heat and corrosion may damage the MSA Anchorage Connector Extension. More frequent inspections are required in these environments.
- ▶ DO NOT use anchorage connector extensions adjacent to moving machinery, electrical hazards, or in the presence of excessive heat, open flame or molten metal.
- ▶ DO NOT use fall arrest or rescue equipment in environments with temperatures greater than 130°F (34°C) or temperatures lower than -30°F (-34°C).
- ▶ DO NOT use the MSA Anchorage Connector Extension near energized equipment or where contact with high voltage power lines may occur. The metal cable and components 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.
- ▶ MSA Anchorage Connector Extensions are to be designated and used solely for approved applications.
- ▶ Unauthorized alterations, relocations, or additions to the anchorage connector extension are not permitted.
- ▶ 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.
- ▶ If PPE is resold, it is essential that instructions for use, maintenance, and periodic examination are provided in the language of destination.
- ▶ DO NOT use MSA Fall Protection products if under the influence of drugs or alcohol.
- ▶ MSA or persons or entities authorized in writing by the manufacturer, shall make all repairs to the equipment. No unauthorized repairs and/or modifications are permitted.
- ▶ 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 special training necessary to effect prompt rescue under all foreseeable conditions. If the rescue be from a confined space, the provisions of OSHA regulation 1910.146 and ANSI Z 117.1 must be taken into account. Although a rescue plan and the means to implement it must always be in place, it is a good idea 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.

1.5 Liability

MSA accepts no liability in cases where the device has been use inappropriately or not as intended. The selection and use of the device are the exclusive responsibility of the individual operator.

Product liability claims, warranties and guarantees made by MSA with respect to the device are voided, if not used, serviced or maintained in accordance with the instructions in this manual.

1.6 Training

Purchasers of MSA Anchorage Connector Extension 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 calculation of free and total fall distance; maximum arresting force 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
- consequences of improper use

For Confined Space applications:

- See OSHA 29 CFR 1910.146 and ANSI Z117.1.

Periodically (at least annually) assess effectiveness of training and determine the need for retraining or additional training. Contact MSA for training information.

1.7 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).

Description

2 Description

The MSA Anchorage Connector Extension functions as an extension from an anchorage connector in a fall protection system. The anchorage connector extension is designed to be connected to an approved anchorage connector using the snap hook at one end of the cable, and is then linked by connecting a fall arrest, restraint, or rescue system to the O-ring end of the anchorage connector extension.

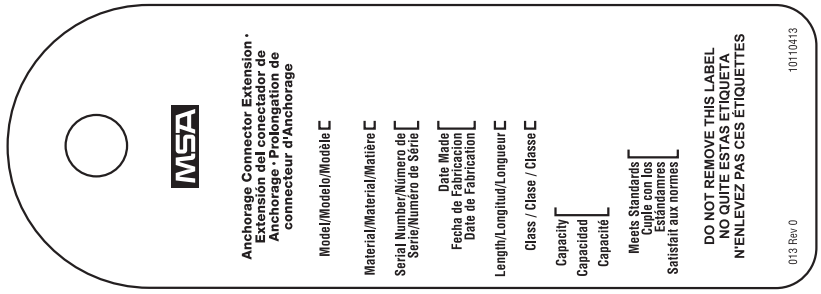
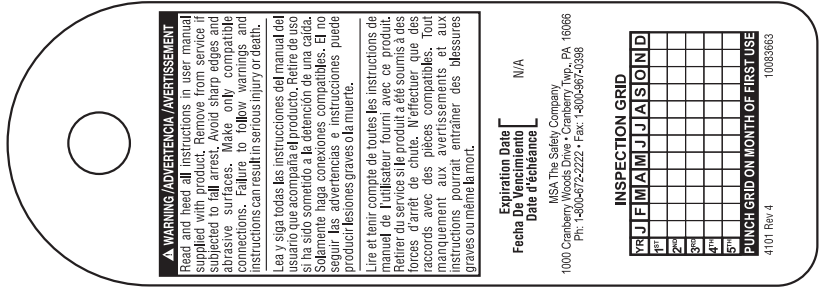
2.1 Specifications

- 7/32"
- Product available in length from 2 to 15 feet. See product label for overall length.
- Galvanized steel cable
- Vinyl coated
- M.B.S. 5000lbs
- ANSI/ASSE Z359.18, when identified on product labeling

2.2 Anchorages and Anchorage Connectors

Anchorages for personal fall arrest systems must either: (a) have a strength capable of supporting and withstanding at least 5,000 pounds (22.2 kN) in the directions permitted by the system without failure, or (b), must be certified by a professional engineer as having the required strength for fall arrest or travel restraint, as applicable. See ANSI Z359.18 for definition of certification. When more than one personal fall arrest system is attached to an anchorage, the anchorage strengths set forth in (a) and (b) must be multiplied by the number of systems attached to the anchorage. This requirement is consistent with OSHA requirements under 20 CFR 1910, Subpart F, Section 1910.66, Appendix C. Do not proceed with installation and use of the anchorage connector if an assessment of strength cannot be made.

2.3 Markings and Labels



3 Use

- (1) Inspect MSA Anchorage Connector Extension before each use in accordance with the inspection instructions.
- (2) The anchorage connector extension is designed for use by one person.
- (3) Ensure that the anchorage structure meets strength requirements of applicable governing regulations and the requirements of ANSI/ASSE Z359.18.
- (4) Ensure that an approved anchorage connector has been installed according to manufacturer's instructions.
- (5) Connect the snap hook end of the MSA Anchorage Connector Extension to the anchorage connector in accordance with anchorage connector instructions. Fall clearance and free fall limits must take into account the additional length that the Anchorage Connector Extension adds to the lanyard length.
- (6) Use the MSA Anchorage Connector only in conjunction with an appropriate anchor to extend the anchor location. Do not use the MSA Anchorage Connector as a stand-alone anchor, in tie-back or wrap around applications or where the cable could contact an edge.
- (7) Connect the fall arrest, restraint, or rescue system to the O-ring on the MSA Anchorage Connector Extension.

4 Care, Maintenance and Storage

4.1 Cleaning Instructions

Clean the MSA Anchorage Connector Extension with a solution of water and mild laundry detergent. 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 MSA Anchorage Connector Extension. Questions concerning MSA Anchorage Connector Extension conditions and cleaning should be directed to MSA.

4.2 Maintenance and Service

Equipment which is damaged or in need of scheduled maintenance must be tagged as "UNUSABLE" and removed from service. Corrective maintenance (other than cleaning) and repair, such as replacement of elements, must be performed by MSA. Do not attempt repairs.

4.3 Storage

Store the MSA Anchorage Connector Extension 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 scheduled 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 should be performed by a competent person.

5 Inspection

- (1) The MSA Anchorage Connector Extension shall be inspected by the user before each use and additionally by a competent person other than the user at intervals of no more than one year. Detailed inspections must be recorded in the inspection log (See 5.2 "Inspection Log").
- (2) The program administrator shall maintain documentation of equipment inspections. This documentation shall include, at a minimum, the identify of the equipment, inspection date, name of the competent or qualified person conducting the inspection and the result of that inspection.
- (3) The program administrator shall set inspection criteria for the equipment. Such criteria shall equal or exceed the most restrictive of the criteria established by the ANSI Z359.18 standard or the manufacturer's user instructions. Keep inspection criteria current in relationship to changing patterns or conditions of use.
- (4) When inspection reveals damage or inadequate maintenance of the anchorage connector extension, the anchorage connector extension shall be permanently removed from service and replaced or undergo adequate corrective maintenance before returning to service.
- (5) Remove anchorage connector extension from service immediately if:
 - the product has been subjected to the forces of a fall.
 - label is missing or illegible.
 - there is evidence of improper function or alterations of any portion.
 - if inspection reveals evidence of damage including, but not limited to, cracks, tears, abrasions, undue stretching, mildew/mold, dents, sharp edges, deformation, kinks, corrosion, chemical attack, excessive heating, excessive aging, or excessive wear.

5.1 Corrective Action

When inspection in accordance with section 5 "Inspection" reveals any of the identified conditions, the MSA Anchorage Connector Extension must be immediately removed from service and marked as "UNUSABLE" until destroyed or subjected to corrective maintenance by the user's organization in accordance with this user instruction. Damage, excessive wear, malfunction, and aging are generally not repairable. If detected, immediately remove the MSA Anchorage Connector Extension from use and mark it as "UNUSABLE" until destroyed. For final disposition, submit the MSA Anchorage Connector Extension to a competent person who is authorized to perform Formal Inspection. If there is any question as to repairability, contact MSA or a service center authorized in writing by MSA before further use of the product.

Inspection

5.2 Inspection Log

5.2.1 Inspection Log

Detailed Inspection and Maintenance		
Model Number		Date Purchased
Inspection Date	Corrective Action Taken	Maintenance Performed
Inspection Items Noted		
Approved by		
Inspection Date	Corrective Action Taken	Maintenance Performed
Inspection Items Noted		
Approved by		

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