



MSA Corporate Headquarters: P.O.Box 426, Pittsburgh, PA 15230, USA
USA Ph:1-800-672-2222 Fax:1-800-967-0398 Canada Ph:1-888-396-1067
• Web Site: www.msanet.com • e-mail: rose@msanet.com

SVLR78 Series Sure Grab Fall Arrester

Application, Operation, Maintenance & Inspection Instructions Manual

Please read this manual. This information is vital to your safety.

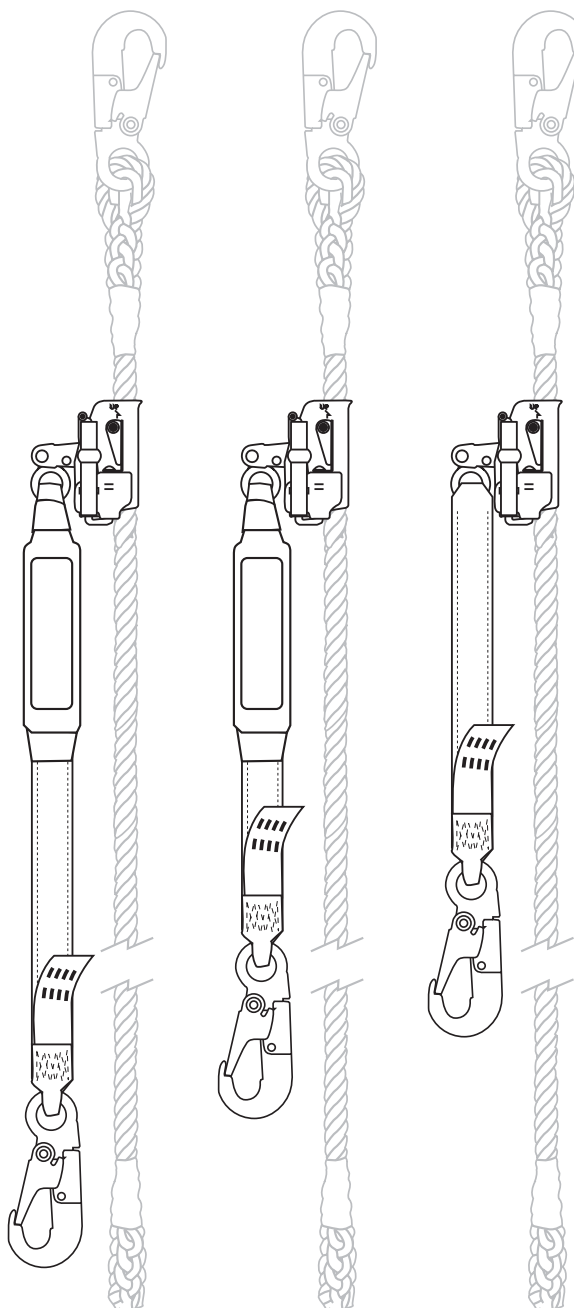


WARNING

THESE INSTRUCTIONS MUST BE PROVIDED TO THE USER. MANAGEMENT AND USER MUST READ AND UNDERSTAND THESE INSTRUCTIONS; FAILURE TO DO SO COULD RESULT IN SERIOUS INJURY OR DEATH.

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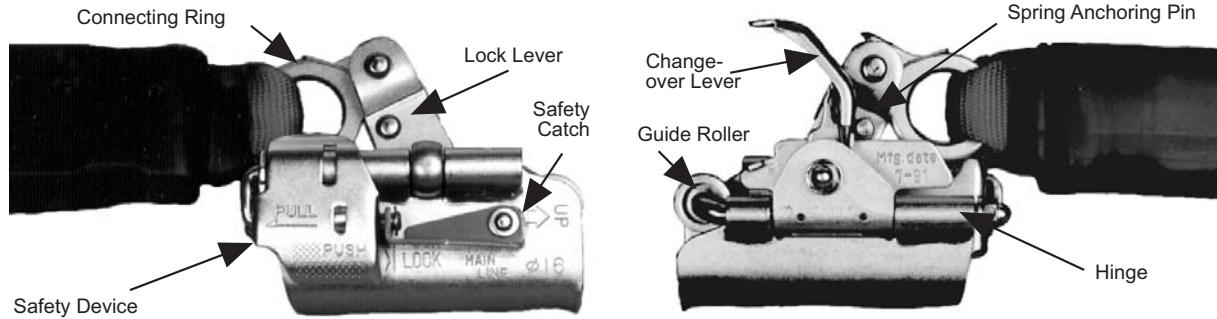


Application

This SVLR78 Sure Grab Device is used for protecting workers in the event of a fall when ascending or descending poles, steel towers (for transmission lines, thermal-power plants, oil refineries, broadcasting antenna and advertisement, etc.), ladders, building or dam construction sites, shipyards, civil engineering works, mines and other higher structures.

Function

The SVLR78 Sure Grab Device moves freely up or down an approved 5/8" (16mm) diameter lifeline, and will lock onto the lifeline in the event of a fall. The Device can be removed from or attached to the lifeline along any point of the approved lifeline. The Sure-Grab device is an automatic rope grab fall arrestor, that can also be used as a manual rope grab fall



Design Working Capacities

ONE PERSON: Design working load is 310 lbs (140 kg) for individual use on an approved synthetic vertical lifeline 5/8" (16mm) in diameter.

Specifications

- ① P/N #SVLR78/LS • Equipped with 12" (294mm) Lanyard (Silver Hook)
- ② P/N #SVLR78/RM • Equipped with 12" (294mm) Lanyard (Gold Hook)
- ③ P/N #SVLR78-4001LS • Equipped with 3' (0.9 m) Integral Shock Absorbing Lanyard (Silver Hook)
- ④ P/N #SVLR78-4001RM • Equipped with 3' (0.9 m) Integral Shock Absorbing Lanyard (Gold Hook)

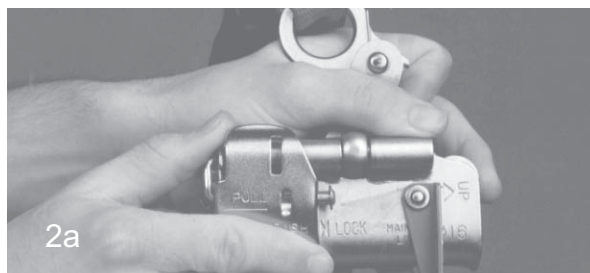
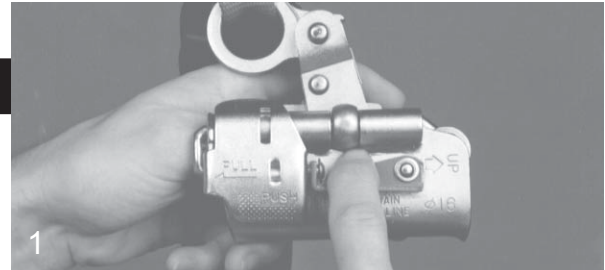
MATERIAL: Formed steel, zinc chromate finish
FUNCTIONS: Automatic and manual
WORKING ROPE: 5/8" (16mm) dia.
 6,000 lbs (26.7 kN) MBS

COMPLIANCE STANDARD: ANSI Z359.1-1992
 Z259.2-M1979

Operating Instructions

(1) Opening of SVLR78 Sure Grab

- a. Swing the red "Safety Catch" away from the "Safety Device". This "Safety Catch" is a second lock for the safety device. (Photo 1)
- b. Push the lower portion (marked "PUSH") of the Safety Device as shown in Photo 2 and 2a.
- c. Pull the Safety Device (as indicated by the stamped marking on the Safety Device) and hook it's slot onto the projection at the end of the device's body. (Photo 3)



continued on next page...

(2) Mounting to Approved Lifeline

- a. The device will now be able to hinge open. Use the lock lever to open the Sure Grab. Lay the rope in the device and swing the device closed. NOTE: The device must be correctly orientated. Make sure that the up arrow, which is stamped on the Sure Grab, is pointing up the rope. (Photo 4)
- b. Again push on the lower portion of the Safety Device. Allow the spring action to close the Safety Device. Check that the Safety Device lines up with the letters "LOCK" stamped into the device as shown in Photo 5. Check the device to ensure the Sure Grab is locked onto the rope. Swing the red Safety Catch back onto the Safety Device. This will lock the Safety Device. (Photo 6 & 7)

When removing the SVLR78 from an approved lifeline, simply reverse these steps.

(3) Change-over Lever Control

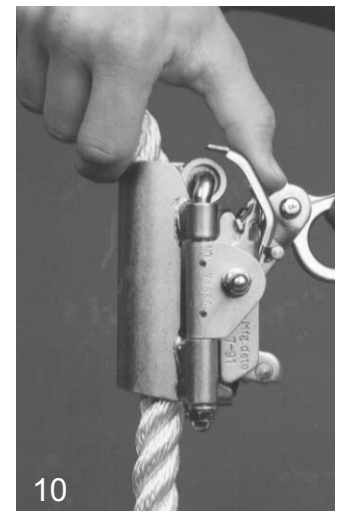
The change-over lever allows the device to be used as an automatic or manual rope grab fall arrester. An automatic rope grab fall arrester will freely follow the user when climbing or descending. A manual rope grab fall arrester must be physically moved up or down the rope by the user. (Photo 8 and 9)

a. Manual Rope Grab Fall Arrester

To use the Sure Grab device as a manual rope grab, simply release the change over lever (as shown in Photo 8 & 9)

b. Automatic Rope Grab Fall Arrester

To use the Sure Grab Device as an automatic rope grab, simply hook the slot of the Change-over lever onto the stud on the body of the Device. (Photo 10)



WARNING

ENSURE THE SAFETY LOCK AND THE RED CATCH ARE ENGAGED. IF EITHER OF THE LOCKING MECHANISMS ARE NOT ENGAGED THE DEVICE COULD OPEN, AND SERIOUS INJURY OR DEATH COULD RESULT IN THE EVENT OF A FALL.

Inspection

1. Equipment 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 an inspection log.
2. When inspection reveals defects in, damage to, or inadequate maintenance of equipment, the equipment shall be permanently removed from service or undergo adequate corrective maintenance before return to service.
3. Remove system from service immediately if the system has
 - been subjected to the forces of arresting a fall;
 - absence of illegibility of markings;
 - absence of any elements affecting the equipment form, fit or function;
 - evidence of defects in or damage to hardware elements including cracks, sharp edges, deformation, corrosion, chemical attack, excessive heating, alteration, needed or excessive lubrication, excessive aging and excessive wear;
 - alteration, absence of parts, or evidence of defects in, damage to or improper function of mechanical devices and connectors.
4. MSA or it's authorized agents, shall make repairs to equipment. No unauthorized repairs and/or modifications are allowed.

Maintenance and Inspection

1. Maintenance and storage of equipment shall be conducted by the user's organization in accordance with MSA instructions. Unique issues, which may arise due to conditions of use, shall be addressed with MSA.
2. Equipment which is in need of or scheduled for maintenance shall be tagged as "unusable" and removed from service.
3. To clean synthetic vertical lifeline, lanyard and energy absorber, wipe with a wet sponge. For more difficult to remove stains, use mild soap. **DO NOT USE CHEMICALS OR DETERGENTS.** Rinse off soap with clear water and hang to dry naturally.
4. All hardware should be cleaned and lubricated with a light oil to ensure good working order. Excess oil should be removed to avoid buildup of dirt.
5. Store in a clean, dry area free from excessive heat, steam, sunlight, harmful fumes, corrosive agents and rodents.
6. When in doubt of the operation, maintenance and inspection procedures, **DO NOT USE.**

1. The MSA Sure Grab Fall Arrester system will comply with government or other applicable regulations and standards.
2. a) The Anchorage/Anchorage Connector should be capable of supporting 5,000 lbs(2,268kg), and independent of the work platform.
b) Never place the lifeline over rough or sharp edges.
3. The maximum arrest force (M.A.F.) applied to the user will not exceed 6kN (1350 lbs) when the design statements are followed.
4. Approved spliced eye vertical lifelines should be terminated with a proper thimble.
5. The Sure Grab Fall Arrester is designed to be used on approved 5/8" (16 mm) diameter rope with a minimum breaking strength of 6,000 lbs (26.7kN)
6. Only ropes that have been tested and approved by MSA are approved for use with the Sure Grab devices.

The approved ropes are:

- a) SLLNL672 3 strand white nylon
 - b) SLLNB672 3 strand black nylon
 - c) SLLPL672 3 strand white polyester
 - d) SLLPY672 3 strand yellow polypropylene
 - e) SLNY672 Sure-D-Braid
(an orange Double braid polyester and nylon)
 - f) SLPP672 3 strand white
Polyester/Polypropylene blended rope
 - g) SLLPS672 3 strand green polysteel
7. Only one (1) person may use a given lifeline at one time, and each lifeline shall be secured to an independant anchorage.
 8. Once the user has reached the work level, the position of the device shall be kept at or above the user's head.
 9. The MSA Sure Grab Fall Arrester is to be attached to an approved full body harness
 10. To ensure the Sure Grab slides smoothly on the vertical lifeline, the vertical lifeline shall be tensioned with a light weight. To tension, secure a counterweight (sandbag, 5-10 lbs (2-5kg)) to the end of the lifeline.

Calculation of the Minimum Clearance Required

Calculation of the minimum distance required can be obtained by using the following formula:

$$MC = X_V + X_R + X_L + X_S + X_D + X_M$$

X_V = Dynamic Elongation of Vertical Lifeline (specify)

| Vertical Lifeline Material | Active Vertical Lifeline | | | | | |
|----------------------------|--------------------------|------|------|------|-------|------|
| | 50' | 100' | 150' | 200' | 250' | 300' |
| Polyester | 2.5' | 5' | 7.5' | 10' | 12.5' | 15' |
| Polypropylene | 4 | 8 | 12 | 16 | 20 | 24 |
| Nylon | 7.5 | 15 | 22.5 | 30 | 37.5 | 45 |

X_R = The Sure Grab Device will slip before engage the rope. 1.0 Ft.

X_L = Max. Lanyard freefall distance (specify) 6.0 Ft.

X_S = Max. Shock Absorber extension 3.28 Ft.

X_D = Dee Ring sliding up on harness 0.5 Ft.

X_M = Person Height (specify) 6.0 Ft.

EXAMPLE:

What is the Minimum Clearance required if a user has a 3 ft. shock absorbing lanyard with a 50 ft. active Polyester vertical lifeline?

$$MC = 2.5 + 1.0 + 6.0 + 3.28 + 0.5 + 6.0$$

$$MC = 19.28 \text{ Ft.}$$

12. The Total Fall Distance of the MSA Sure Grab Vertical Lifeline System should not exceed minimum clearance on application.
13. Always check for obstructions below the work area to ensure your potential fall path is clear. Work directly under the anchorage at all times, as swing falls can result in serious injury or death.
14. All equipment should be used as part of a complete, comprehensive engineered fall protection system. No unauthorized manufacturers equipment should be used in the system without written approval by MSA If the buyer chooses to disregard this warning, he assumes responsibility for the integrity of the entire system.
15. Remove lifeline/fall arrest system from service immediately if the system has arrested a fall. A qualified person shall inspect and recertify the system prior to returning it to active service.
16. All potential users of this equipment and users management must read and understand the instructions fully; failure to do so could result in serious injury or death.

Serial Number _____

Model Number _____

Date Purchased _____

| Inspection Date | Inspection Items Noted | Corrective Action Taken | Maintenance Performed |
|-------------------|------------------------|-------------------------|-----------------------|
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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).