DBI SALA®
A Capital Safety Company

INSTRUCTION MANUAL

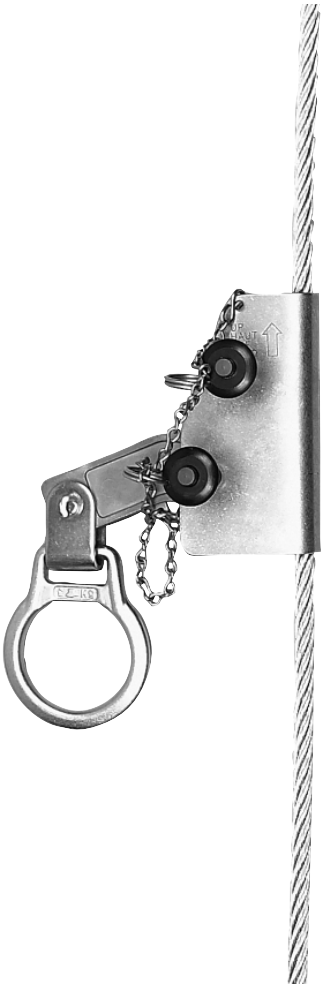
LAD-SAF™ STATIC WIRE ROPE GRAB

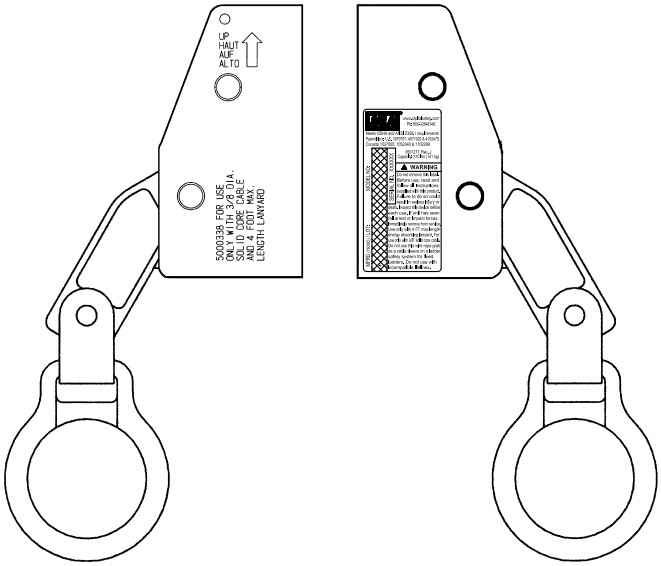
FOR 3/8 INCH WIRE CABLE

Model Number: 5000338

Figure 1 – Static Wire Rope Grab

Model	Description	Cable Requirements
5000338	Wire Rope Grab	For use with 9.5 mm (3/8 in) diameter 7x19 Galvanized or Stainless Steel Cable





FORM NO: 5906265
REV: E

WARNING: *This product is part of a personal fall arrest system. The user must follow the manufacturer's instructions for each component of the system. These instructions must be provided to the user of this equipment. The user must read and understand these instructions before using this equipment. Manufacturer's instructions must be followed for proper use and maintenance of this equipment. Alterations or misuse of this product or failure to follow instructions may result in serious injury or death.*

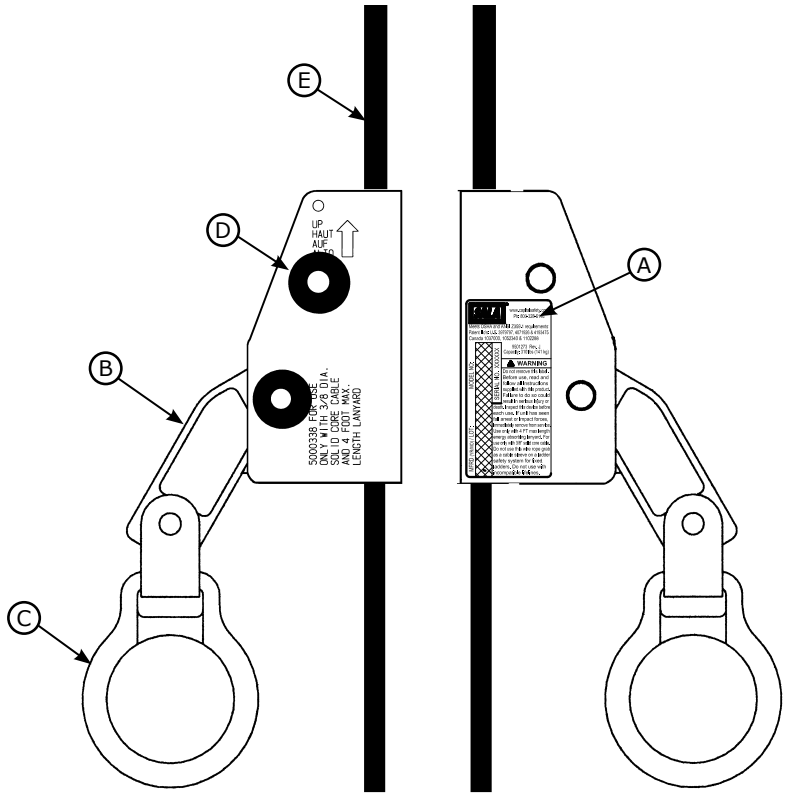
IMPORTANT: *If you have questions on the use, care, or suitability of this equipment for your application, contact Capital Safety.*

IMPORTANT: *Before using this equipment, record the product identification information from the ID label in the Inspection and Maintenance Log at the back of this manual.*

DESCRIPTION:

This Wire Rope Grab is intended to be used as part of a personal fall arrest system or restraint system. The wire rope grab provides a portable lanyard connection point on a wire rope lifeline. **Note: This wire rope grab is not designed to follow the worker.** If repositioning on your lifeline is required, you must manually reposition the wire rope grab at the desired location.

Figure 2 – Static Wire Rope Grab Components



A - ID/Warning Label **B** - Wedge/Handle Assembly **C** - Attachment D-ring **D** - Detent Pin **E** - Lifeline

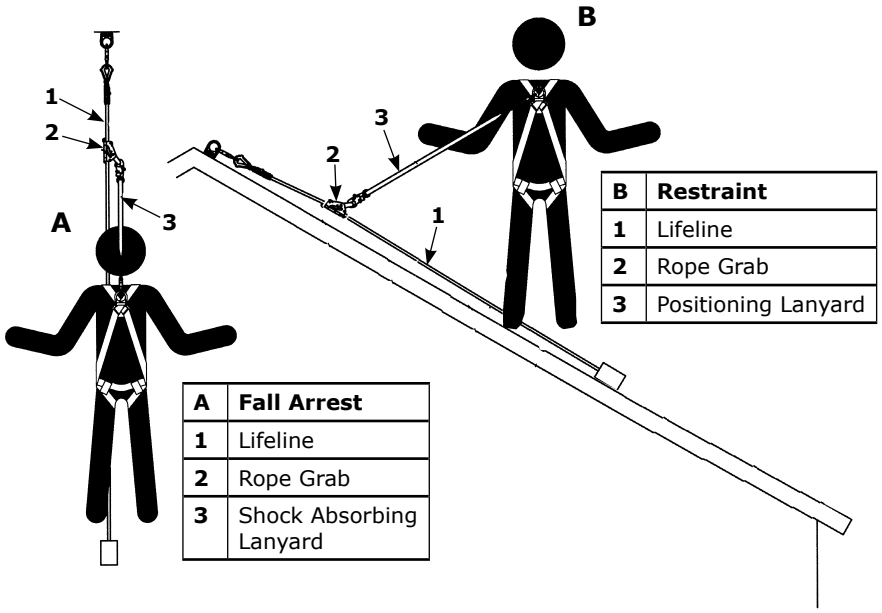
1.0 APPLICATIONS

1.1 PURPOSE: The Lad-Saf™ is intended to be used as part of a personal fall arrest system or restraint system (Figure 3). The rope grab provides a portable lanyard connection point on a rope lifeline.

FALL ARREST: A typical fall arrest system includes a rope grab, a lifeline, shock-absorbing lanyard, and full body harness. The potential for free fall must be limited to 6 ft. (1.8 M).

RESTRAINT: Restraint systems prevent the user from reaching a fall hazard (example: leading edge roof work). A typical restraint system includes a rope grab, lifeline, positioning lanyard, and full body harness. No vertical free fall is permitted.

Figure 3 – Applications



B	Restraint
1	Lifeline
2	Rope Grab
3	Positioning Lanyard

A	Fall Arrest
1	Lifeline
2	Rope Grab
3	Shock Absorbing Lanyard

1.2 STANDARDS: Refer to the following national standard on fall protection: OSHA 1910.66, Appendix C.

1.3 TRAINING: This equipment is intended to be used by persons trained in its correct application and use. It is the responsibility of the user to assure they are familiar with these instructions and are trained in the correct care and use of this equipment. Users must also be aware of the operating characteristics, application limits, and the consequences of improper use.

CAUTION: *Training must be conducted without exposing the user to a fall hazard. Training should be repeated on a periodic basis.*

1.4 INSPECTION FREQUENCY: The Wire Rope Grab shall be inspected by the user before each use by following the procedures defined in Table 2 *"Inspection Checklist"* and, additionally, by a competent person[1] other than the user at intervals of no more than one year[2]. Results of each Competent Person inspection should be recorded in the *"Inspection and Maintenance Log"* in the back of this manual.

2.0 LIMITATIONS & REQUIREMENTS

Always consider the following limitations and requirements when installing or using this equipment.

2.1 CAPACITY: The Lad-Saf™ Wire Rope Grab is designed for use by one person with a combined weight (person, clothing, tools, etc.) up to 310 lbs (141 kg).[3] At no time shall more than one person connect to the Lad-Saf™ Wire Rope Grab for Fall Arrest applications.

2.2 CABLE TYPE: The Lad-Saf™ Wire Rope Grab must be used with 3/8 in (9.5 mm) diameter 7x19 galvanized or stainless steel cable.

2.3 LANYARD LENGTH: The length of the lanyard used with the Lad-Saf™ Wire Rope Grab must be limited to 3 ft (0.9 m) or less.

2.4 FREE FALL: Personal fall arrest systems used with this equipment must be rigged to limit the free fall to 6 ft. (1.8 m). See the subsystem manufacturer's instructions for more information.

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1 ***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.*

2 ***Inspection Frequency:*** *Extreme working conditions (harsh environments, prolonged use, etc.) may require increasing the frequency of competent person inspections.*

3 ***Capacity:*** *Most Capital Safety rope grabs are factory tested to a maximum capacity of 310 lbs (141 kg).*

2.5 FALL CLEARANCE: Ensure sufficient clearance exists in your fall path to prevent striking an object during a fall. The clearance required is dependent upon the subsystem (rope grab and lanyard, rope grab and carabiner) and lifeline properties. Table 1 shows the approximate elongation for new DBI/SALA lifelines in dry conditions. The elongation specified is for an applied static load of 1,800 lbs (8 kN). Lifeline elongation must be considered when estimating fall clearance. Factors that affect fall clearance include:

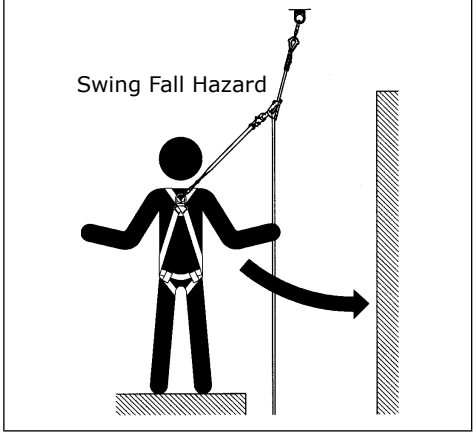
- Elevation of anchorage
- Connecting subsystem length
- Lifeline elongation. See Table 1:
- Free fall distance
- Deceleration distance
- Worker height
- Movement of harness attachment element

Table 1 - Life Line Elongation: ft (m)

	Lifeline Lenght: ft (m)		
Lifeline Type	25 (8) - 75 (23)	100 (30)	150 (46)
3/8” Wire Rope	—	0.43 (0.13)	0.65 (0.2)

2.6 SWING FALLS: Swing Falls occur when the anchorage point is not directly above the point where a fall occurs (see Figure 4). The force of striking an object in a swing fall may cause serious injury or death. Minimize swing falls by working as close to the anchorage point as possible. Do not permit a swing fall if injury could occur. Swing falls will significantly increase the clearance required when a SRL (self-retracting lifeline) or other variable length connecting subsystem is used.

Figure 4 – Swing Falls



2.7 ENVIRONMENTAL HAZARDS: Use of this equipment in areas with environmental hazards may require additional precautions to prevent injury to the user or damage to the equipment. Hazards may include, but are not limited to; heat, chemicals, corrosive environments, high voltage power lines, gases, moving machinery, and sharp edges.

WARNING: *When working with tools, materials, or in high temperature environments, ensure that associated fall protection equipment can withstand high temperatures, or provide protection for those items.*

2.8 COMPATIBILITY OF COMPONENTS: Capital Safety equipment is designed for use with Capital Safety approved components and subsystems only. Substitutions or replacements made with non-approved components or subsystems may jeopardize compatibility of equipment and may effect the safety and reliability of the complete system.

2.9 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 Capital Safety if you have any questions about compatibility.

Connectors (hooks, carabiners, and D-rings) must be capable of supporting at least 5,000 lbs (22.2 kN). 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 (see Figure 5). Connectors must be compatible in size, shape, and strength. If the connecting element to which a snap hook (shown) or carabiner attaches is undersized or irregular in shape, a situation could occur where the connecting element applies a force to the gate of the snap hook or carabiner. This force may cause the gate (of either a self-locking or a non-locking snap hook) to open, allowing the snap hook or carabiner to disengage from the connecting point. Self- locking snap hooks and carabiners are required.

Figure 5 – Unintentional Disengagement

If the connecting element to which a snap hook (shown) or carabiner attaches is undersized or irregular in shape, a situation could occur where the connecting element applies a force to the gate of the snap hook or carabiner. This force may cause the gate (of either a self-locking or a non-locking snap hook) to open, allowing the snap hook or carabiner to disengage from the connecting point.

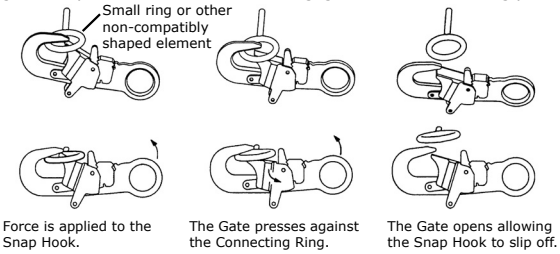
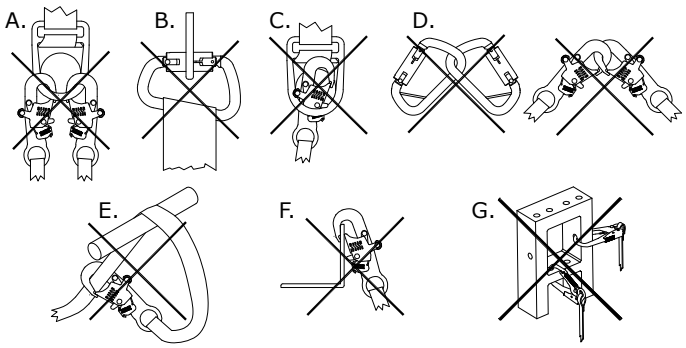


Figure 6 – Inappropriate Connections



2.10 MAKING CONNECTIONS: Use only self-locking snap hooks and carabiners with this equipment. Use only 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. Ensure all connectors are fully closed and locked.

Capital Safety connectors (snap hooks and carabiners) are designed to be used only as specified in each product's user's instructions. See Figure 6 for inappropriate connections. Capital Safety snap hooks and carabiners should not be connected:

A. To a D-ring to which another connector is attached.

B. In a manner that would result in a load on the gate.

> ***CAUTION:*** *Large throat snap hooks should not be connected to standard size D-rings or similar objects which will result in a load on the gate if the hook or D-ring twists or rotates.*

C. In a false engagement, where features that protrude from the snap hook or carabiner catch on the anchor, and without visual confirmation seems to be fully engaged to the anchor point.

D. To each other.

E. Directly to webbing or rope lanyard or tie-back (unless the manufacturer's instructions for both the lanyard and connector specifically allows such a connection).

F. 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.

G. In a manner that does not allow the connector to align properly while under load.

2.11 CONNECTING SUBSYSTEMS: Connecting subsystems (self-retracting lifeline, lanyard, rope grab and lifeline, cable sleeve, etc.) must be suitable for your application (See section 1.1). See the subsystem manufacturer's instructions for additional information. Some SRL models have web loop connection points. Do not use snap hooks to connect to web loops. Use a self-locking carabiner to connect to a web loop. Ensure the carabiner cannot cross-gate load (load against the gate rather than along the backbone of the carabiner). Some lanyards are designed to choke onto a web loop to provide a compatible connection. Lanyards may be sewn directly to the web loop forming a permanent connection. Do not make multiple connections onto one web loop, unless choking two lanyards onto a properly sized web loop.

2.12 ANCHORAGE STRENGTH: Anchorages selected for use with the Wire Rope Grab must have a strength capable of sustaining the static load requirements of the intended fall protection application:

- **Fall Arrest:** From OSHA 1910.66 and 1926.500: Anchorages used for attachment of a personal fall arrest system shall be independent of any anchorage being used to support or suspend platforms, and be capable of supporting at least 5,000 lbs (22.2 kN) per user attached, or be designed, installed, and used as part of a complete personal fall arrest system which maintains a safety factor of at least two, and is supervised by a qualified person.
- **Restraint:** Anchorages must be capable of supporting a minimum of 3,000 lbs (1,360 kg) per system attached to the anchorage.

> ***WARNING:*** *Restraint anchorages may only be used where there is no possible vertical free fall. Restraint anchorages do not have sufficient strength for fall arrest. Do not connect personal fall arrest systems to restraint anchorages.*

> ***WARNING:*** *If the wire wire rope grab has been subjected to fall arrest or impact forces it must be removed from service and destroyed.*

> ***IMPORTANT:*** *Extreme working conditions (harsh environments, prolonged use, etc.) may require increasing the frequency of inspections.*

3.0 OPERATION & USE

3.1 PLANNING: Plan your fall protection system before starting your work. Account for all factors that may affect your safety before, during, and after a fall. Consider all limitations and requirements defined in Section 2.

3.2 GENERAL USE CONSIDERATIONS: Avoid working where lifeline may cross or tangle with that of another worker. Do not allow the lanyard to pass under arms or between legs. Do not clamp, tie, or other wise prevent the rope grab lanyard connection handle from moving freely into the "locked" position.

3.3 SLOPED ROOFS: Provisions must be made (warning lines, monitors, guardrails) to prevent swing falls from unprotected roof edges or corners. The rope grab should be connected to the body support using a locking carabiner (direct connection) or a short lanyard. If a lanyard is used for connecting to the rope grab, keep the length as short as possible, and never greater than three feet. The lifeline must be protected from contact with sharp or abrasive edges and surfaces. The rope grab locking operation must not be hindered by interference with the roof or objects on the roof surface.

3.4 UNSTABLE SURFACES: The rope grab is not suitable for use on unstable or slowly shifting materials, such as sand or grain.

3.5 CONNECTING THE DETACHABLE WIRE ROPE GRAB TO THE LIFELINE:

> ***WARNING:*** *In situations where a fall hazard exists, use a back-up fall arrest system, such as a lanyard, to protect against a fall.*

Step 1. **Figure 7:** Hold the wire rope grab in the up position, as indicated by an arrow stamped on the wire rope grab body.

Step 2. **Figure 8:** Open the wire rope grab by pressing the button on both detent pins and pulling the detent pins out of the wire rope grab.

Step 3. **Figure 9:** Place the wire rope grab body around the lifeline, ensuring the stamped arrow is pointing up. Install the upper detent pin.

Step 4. **Figure 10:** Install the wedge/handle assembly into the wire rope grab by positioning the slot in the wedge around the upper detent pin and against the lifeline.

Step 5. **Figure 11:** Rotate the bottom end of the wedge/handle assembly into the wire rope grab until the hole in the handle aligns with the lower hole in the wire rope grab body.

Step 6. **Figure 12:** Install the lower detent pin. Insure the detent pins are securely locked. Check the locking action by lifting the handle up and releasing. The wire rope grab must lock onto the lifeline. If the wire rope grab does not securely lock on the lifeline, repeat steps 1 through 5. Do not use if the wire rope grab will not operate correctly.

Figure 7 – Connect to Lifeline: Step 1

Figure 8 – Connect to Lifeline: Step 2

Figure 9 – Connect to Lifeline: Step 3

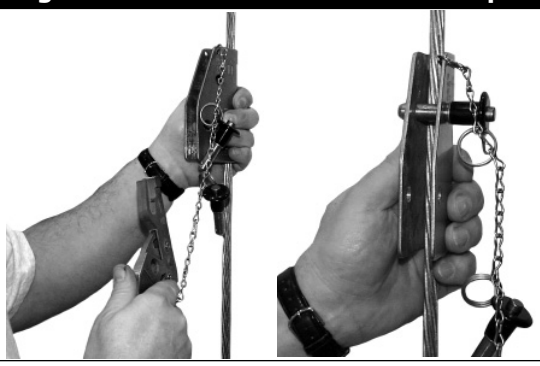


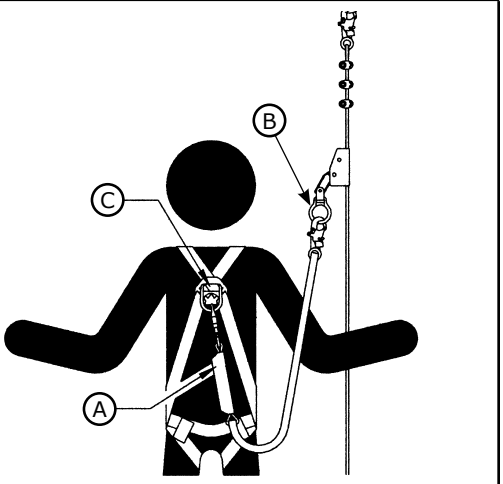
Figure 10 – Connect to Lifeline: Step 4

Figure 11 – Connect to Lifeline: Step 5

Figure 12 – Connect to Lifeline: Step 6

3.6 CONNECTING THE LANYARD TO THE BODY SUPPORT: (See Figure 13) Attach your lanyard (A) to the wire rope grab D-ring (B). When using an energy absorbing lanyard, the pack end of the lanyard is attached to the back D-ring on your body harness (C). When using a body belt (for restraint applications only) connect the restraint lanyard to the D-ring on your body belt. Ensure all connections are compatible. See lanyard and body support manufacturer's instructions for more information.

Figure 13 – Connection



3.7 POSITIONING THE WIRE ROPE GRAB ON THE LIFELINE: This wire rope grab is designed to remain in place on the lifeline. To reposition the wire rope grab on the lifeline, follow these steps:

1. Lift the wire rope grab handle up to release it from its current position.

2. Raise or lower the wire rope grab to the new position. Position the wire rope grab at or above your back D-ring to minimize free fall distance**.**

3. Check the locking action by lifting the handle up and releasing. The wire rope grab must lock onto the lifeline. Do not use if the wire rope grab will not operate correctly.

4.0 TRAINING

4.1 It is the responsibility of all users of this equipment to understand these instructions and to be trained in the correct installation, use, and maintenance of this equipment. These individuals must be aware of the consequences of improper installation or use of this equipment. This user manual is not a substitute for a comprehensive training program. Training must be provided on a periodic basis to ensure proficiency of the users.

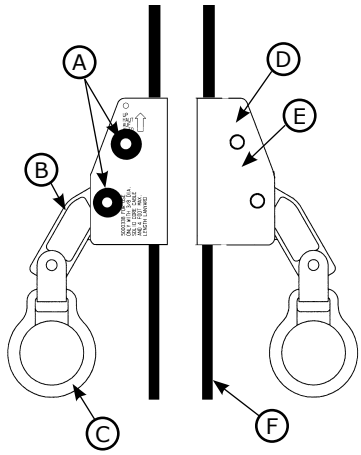
> ***IMPORTANT:*** *Training must be conducted without exposing the trainee to a fall hazard. Training should be repeated on a periodic basis.*

5.0 INSPECTION

5.1 UNSAFE OR DEFECTIVE CONDITIONS: If inspection reveals an unsafe or defective condition, remove the Wire Rope Grab from service immediately and destroy it.

> ***IMPORTANT:*** *Do not alter or attempt to repair the wire rope grab. Do not make substitutions for the wire rope grab parts. Repairs may only be performed by an authorized service center.*

5.2 PRODUCT LIFE: The functional life of DBI-SALA wire rope grabs is determined by work conditions and maintenance. As long as the product passes inspection criteria, it may remain in service.

Table 2 - Inspections Schedule & Checklist			
Component:	**Inspection:**	**Pass**	**Fail**
Lad-Saf Wire Rope Grab 	Inspect the detent pins (A). The button should spring back when pushed down. The pins should slide easily through the wire rope grab body and wedge/handle assembly.	☐	☐
	Inspect the function of the wedge/handle assembly (B). The handle should move freely, with no sticking or binding. The wedge must engage and lock onto the lifeline. The handle spring must be in place and undamaged.	☐	☐
	Inspect the lanyard attachment D-ring (C). The D-ring must be free of corrosion, cracks, or other deformities. The bracket and pin holding the D-ring must be undamaged.	☐	☐
	Inspect the wire rope grab body (D). The wire rope grab body must be free of wear, corrosion, cracks, or other deformities.	☐	☐
	All labels and markings on the wire rope grab must be present and fully legible (E). (See *"Labeling"*).	☐	☐
	Record the inspection date and results in the Inspection and Maintenance Log in this document.		
Lifeline	Inspect the lifeline (F) according to the manufacturer's instructions.	☐	☐
Lanyard	Inspect the Lanyard per the manufacturer's instructions.	☐	☐
Full Body Harness	Inspect the Full Body Harness per the manufacturer's instructions.	☐	☐

6.0 CLEANING, MAINTENANCE, AND STORAGE

6.1 Periodically clean the Lad-Saf Wire Rope Grab using water and mild detergent. Clean the label as required.

6.2 Replacement parts and additional maintenance and servicing procedures must be completed by an authorized service center. An authorization and return number must be issued by DBI/SALA.

6.3 Clean and store system components according to the manufacturer's instructions.

6.3 Store the wire rope grab in a clean and dry environment out of direct sunlight. Avoid areas with chemical vapors. Inspect the wire rope grab after extended storage.

7.0 LAD-SAF WIRE ROPE GRAB SPECIFICATIONS/PERFORMANCE DATA

7.1 SPECIFICATIONS:

- **Weight:** 2.25 lbs. (1 kg)
- **Overall Dimensions (including detent pins):** 10.5 x 2.5 x 5.5 inches (26.7 x 6.4 x 14.0 cm).
- **Materials:** Stainless steel.

7.2 PERFORMANCE DATA:

- **Arrest Force:** Designed for 1,800 lbs (8 kN) maximum arresting force.
- **Maximum Capacity:** 310 lbs (141 kg)
- **Applicable Standards:** OSHA 1910.66, Appendix C

8.0 LABELING

This **Identification Label** must be present and completely legible:

INSPECTION AND MAINTENANCE LOG

SERIAL NUMBER:	
MODEL NUMBER:	
DATE PURCHASED:	**DATE OF FIRST USE:**

INSPECTION DATE	INSPECTION ITEMS NOTED	CORRECTIVE ACTION	MAINTENANCE PERFORMED
Approved By:			
Approved By:			
Approved By:			
Approved By:			
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LIMITED LIFETIME WARRANTY

Warranty to End User: D B Industries, Inc., dba CAPITAL SAFETY USA ("CAPITAL SAFETY") warrants to the original end user ("End User") that its products are free from defects in materials and workmanship under normal use and service. This warranty extends for the lifetime of the product from the date the product is purchased by the End User, in new and unused condition, from a CAPITAL SAFETY authorized distributor. CAPITAL SAFETY'S entire liability to End User and End User's exclusive remedy under this warranty is limited to the repair or replacement in kind of any defective product within its lifetime (as CAPITAL SAFETY in its sole discretion determines and deems appropriate). No oral or written information or advice given by CAPITAL SAFETY, its distributors, directors, officers, agents or employees shall create any different or additional warranties or in any way increase the scope of this warranty. CAPITAL SAFETY will not accept liability for defects that are the result of product abuse, misuse, alteration or modification, or for defects that are due to a failure to install, maintain, or use the product in accordance with the manufacturer's instructions.

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