



The Ultimate in Fall Protection

<b>CE</b>	<b>EN795: 1996 Class B</b>
<b>CE Type Test</b> No. 0086 BSI Product Services P.O. Box 6221, Kitemark Court Davy Avenue Milton Keynes MK1 9EP UK	<b>CE Production Quality Control</b> No. 0086 BSI Product Services P.O. Box 6221, Kitemark Court Davy Avenue Milton Keynes MK1 9EP UK

**flexiguard**<sup>®</sup>  
**Ladder Fall Arrest System**

Model Numbers:

8517714	8517719	8530658	8567715
8517715	8530140	8530659	8567717
8517716	8530555	8530674	8567719
8517717	8530584	8530682	
8517718	8530652	8530683	



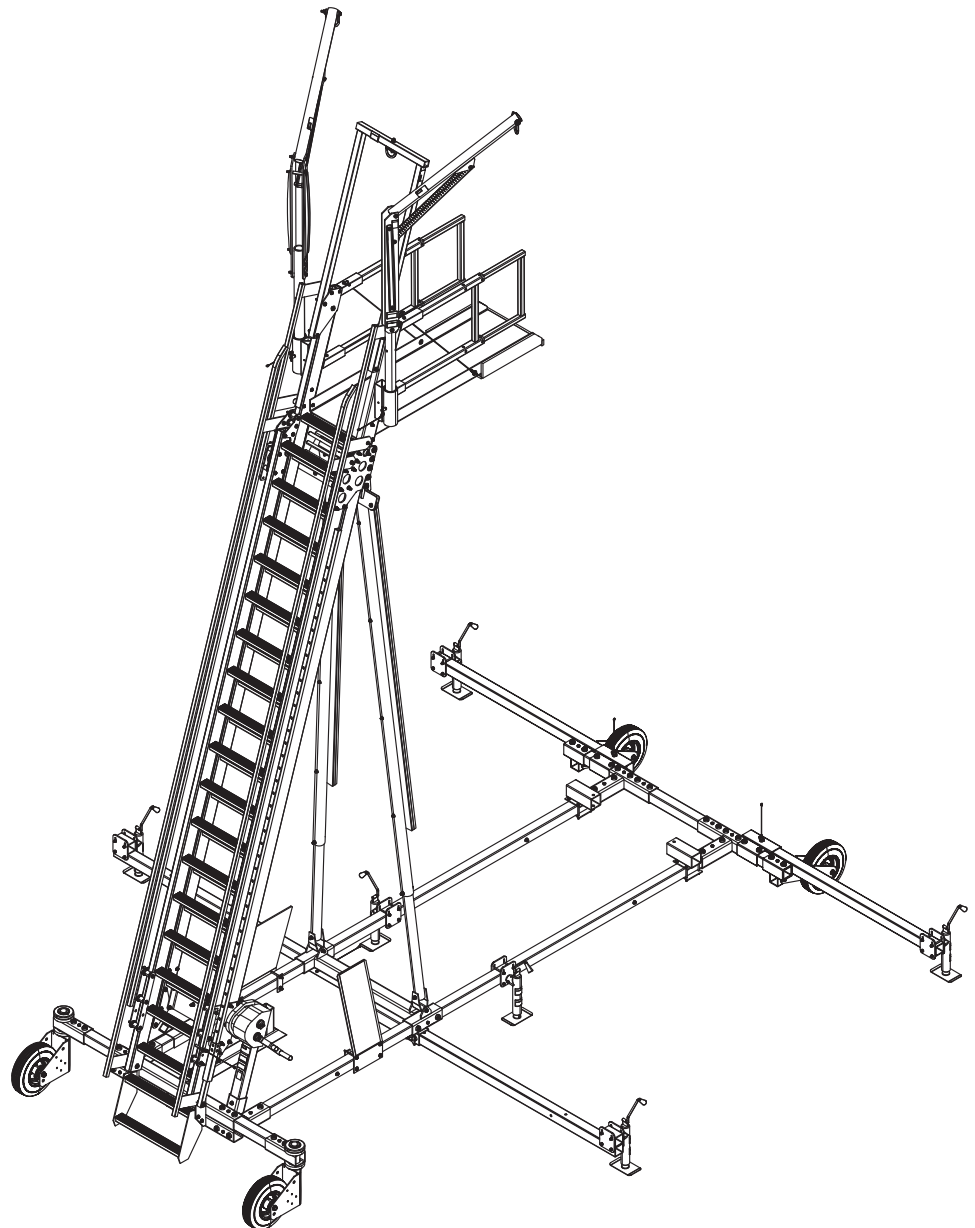
User must read and understand these instructions before assembling or using this equipment.

## User Instruction Manual

**WARNING:** This product is part of a fall arrest system. These instructions must be provided to all users and rescuers (see Section 7 - Terminology) using this equipment. The user must read and understand these instructions before assembling or using this equipment. The user must follow the manufacturer's instructions for each component of the system. Manufacturer's instructions must be followed for proper use and maintenance of this equipment. Alterations or misuse of this equipment, or failure to follow instructions, may result in serious injury or death.

**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.

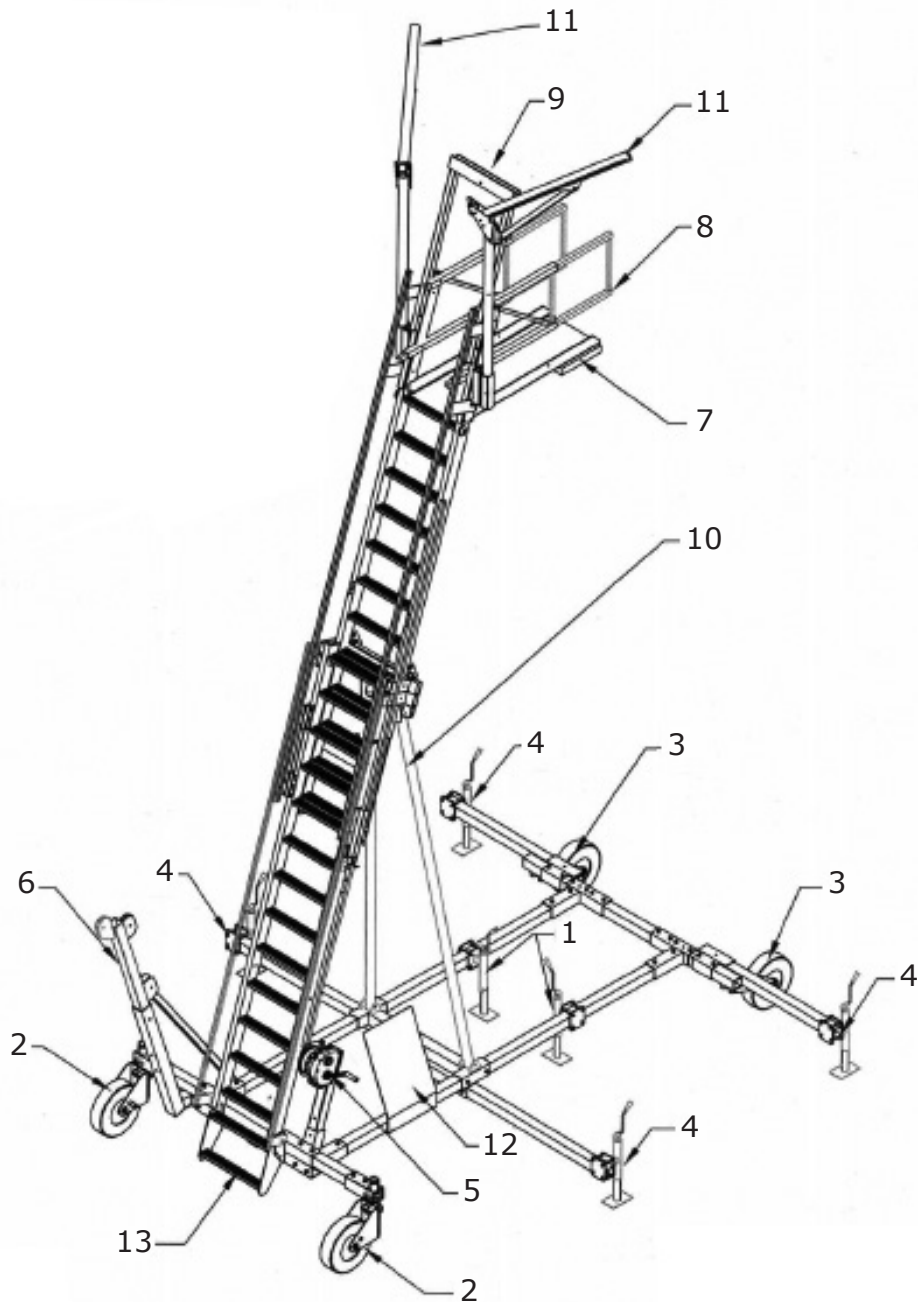
**IMPORTANT:** If you have questions on the use, care, application, or suitability for use of this safety equipment, contact Capital Safety.



**EMPLOYEE TRAINING:** This manual is intended to meet industry standards, including OSHA, ANSI Z359.1, and CE EN795 and should be used as part of an employee training program as required by OSHA.



Figure 1 - Parts Identification



- |    |                      |     |  |
|----|----------------------|-----|--|
| 1. | Inner Jacks          | 8.  | Handrail (2)                           |
| 2. | Swivel Wheel         | 9.  | Overhead Anchor Point Post             |
| 3. | Fixed Wheel          | 10. | Ladder Support Tubes                   |
| 4. | Outriggers and Jacks | 11. | Davit                                  |
| 5. | Winch Post           | 12. | Operators Setup and Use<br>Decal Plate |
| 6. | Lifting Kit          | 13. | Step                                   |
| 7. | Platform             |     |  |

## 1.0 APPLICATIONS

### 1.1 PURPOSE: Personal Protective Equipment against falls from a height.

The adjustable Ladder Fall Arrest System (Ladder FAS) with Fall Protection combines easy access to elevated work areas with fall protection from the ground for the duration of the work being performed. Each unit includes two collapsible masts. Each mast has an attachment point for the anchorage of a Personal Fall-Arrest System (PFAS). The assembly can be moved by hand, by a forklift or towed by a maintenance vehicle when equipped with proper accessories.

### 1.2 LIMITATIONS: The following application limitations must be considered before using this product. Failure to observe product limitations could result in serious injury or death.

- A. ASSEMBLY:** The ladder system must be assembled in accordance with the requirements stated in the appropriate Instructions Manual for the product.
- B. CAPACITY:** The maximum working load for this product is two persons with a combined weight of 310 lbs. (141 kg) per person (per attachment point; see Davit, Number 12 in Figure 1).
- C. PERSONAL FALL ARREST SYSTEMS:** Personal fall arrest systems used with the Ladder FAS must meet applicable state and federal regulations, or CE regulations, and the requirements stated in Section 3.3.
- D. PHYSICAL AND ENVIRONMENTAL HAZARDS:** Use of this equipment in areas with 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 (welding or metal cutting), acid or caustic chemicals, corrosive environments such as exposure to seawater, high voltage power lines, explosive or toxic gases, moving machinery or sharp edges. Contact DBI-SALA if you have questions about the application of this equipment in areas where physical or environmental hazards are present.
- E. TRAINING:** This equipment is to be assembled, installed and used by persons who have been trained in its correct application and use.

### 1.3 STANDARDS: Refer to national standards, including the ANSI Z359 family of standards .0, .1, .2, .3, and .4, local, state, and OSHA requirements for more information on the application of this and associated equipment.

**WARNING:** Do not alter or intentionally misuse this equipment.

**WARNING:** It is essential for the safety of the user that if the Ladder Fall Arrest System (Ladder FAS) is resold outside the original country of destination the reseller shall provide instructions for use, maintenance, periodic examination and repair in the language of the country in which the product is to be used.

**MEDICAL WARNING:** Working at height has inherent risks. Some risks are noted here but are not limited to the following: falling, suspension/prolonged suspension, striking objects, and unconsciousness. In the event of a fall arrest and/or subsequent rescue (emergency) situation, some personal medical conditions may affect your safety. Medical conditions identified as risky for this type of activity include but are not limited to the following: heart disease, high blood pressure, vertigo, epilepsy, drug or alcohol dependence, psychiatric illness, impaired limb function and balance issues. We recommend that your employer/physician determine if you are fit to handle normal and emergency use of this equipment.

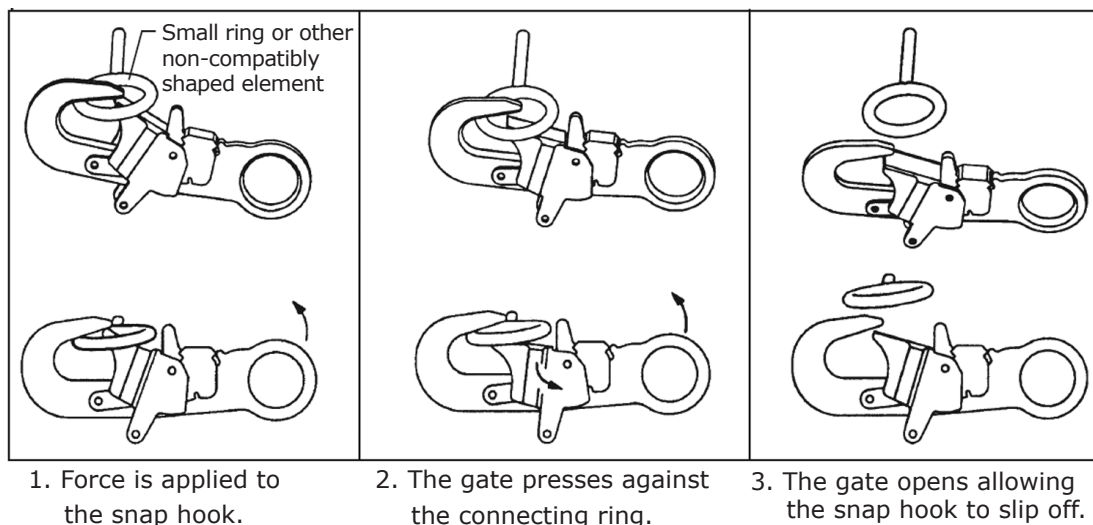
## 2.0 SYSTEM REQUIREMENTS

**2.1 COMPATIBILITY OF COMPONENTS:** DBI-SALA equipment is designed for use with DBI-SALA 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.

**2.2 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 DBI-SALA if you have any questions about compatibility. Connectors (hooks, carabiners, and D-rings) must be capable of supporting at least 5,000 lbs. (22.2kN). 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 2). Connectors must be compatible in size, shape, and strength. Self-locking snap hooks and carabiners are required by CE, ANSI Z359.1 and OSHA.

**Figure 2 - Unintentional Disengagement (Roll Out)**

If the connecting element that a snap hook (shown) or carabiner attaches to 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.



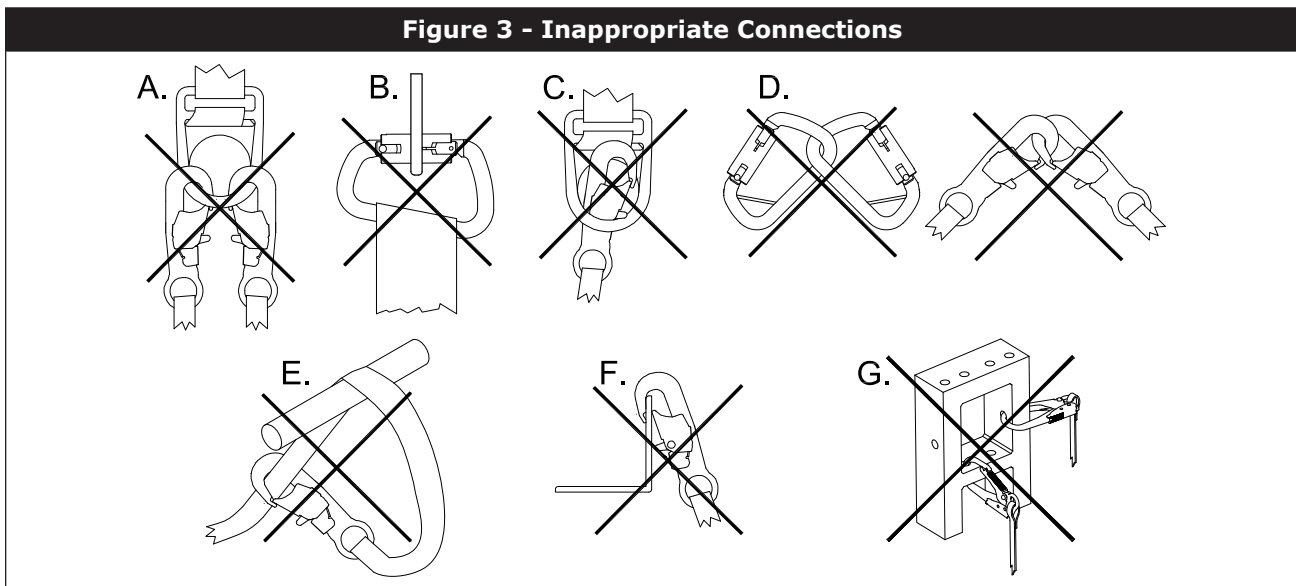
**2.3 CONNECTIONS:** Only use self-locking snap hooks and carabiners with this equipment. Only use connectors that are suitable to each application. Ensure all connections are compatible in size, shape and strength. Do not use equipment that is not compatible. Ensure all connectors are fully closed and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

**NOTE:** Large throat opening 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. Large throat snap hooks are designed for use on fixed structural elements such as rebar or cross members that are not shaped in a way that can capture the gate of the hook.

- 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 tieback (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.

**Figure 3 - Inappropriate Connections**



### **3.0 OPERATION AND USE**

**WARNING:** Consult DBI-SALA 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. Use caution when using this equipment around moving machinery, electrical hazards, chemical hazards, and sharp edges.

- 3.1 BEFORE EACH USE:** Inspect this equipment carefully to ensure it is in good working condition. Check for worn or damaged parts. Ensure all parts are present and secure. Check the entire system for damage and corrosion. See Section 4.0 for further inspection details. Do not use if inspection reveals an unsafe condition.
- 3.2 PLANNING:** Plan your system and how it will function before starting your work. Consider all factors that affect your safety during use. Some important points to consider when planning your system are:
  - A. HAZARD EVALUATION:** Evaluate job site hazards prior to starting work. Consult applicable OSHA (or CE) and industry standards for guidelines and regulatory requirements on issues such as personal fall arrest systems (PFAS).

**B. WORK SITE GEOMETRY:** The use of the Ladder FAS must be consistent with the geometric requirements stated in the associated manufacturer’s instruction manuals. Check for obstructions or sharp edges in the work path. Avoid working where the user may swing and hit an object, or where lines may cross or tangle with that of another worker.

**C. RESCUE:** A means of dealing with an accident or emergency must be planned in advance. Response time can play an important role in the survival of an injured worker. Users of this equipment must be trained in emergency procedures.

The owner’s organization must provide the User Instruction Manual to any user of this equipment or to any rescuer.

**3.3 REQUIREMENTS FOR PERSONAL FALL ARREST SYSTEMS (PFAS):** PFAS used with the Ladder FAS must meet applicable OSHA and CE Fall Arrest Requirements:

OSHA Models				CE Models
8517714	8517718	8530652	8530682	8567715
8517715	8517719	8530658	8530683	8567717
8517716	8530555	8530659		8567719
8517717	8530584	8530674		
<b>900 lbf (4 kN)</b>				<b>1350 lbf (6 kN)</b>

- The PFAS should be rigged to minimize any potential free fall and never allow a free fall greater than 6 ft. (1.8 m). The PFAS used with this equipment are required to include a full body harness as the body support component. PFAS’s that incorporate full body harnesses must maintain fall arrest forces below 1,350 lbs. (6.0 kN) and arrest the fall within 42 in. (1.1 m). Body belts, unless incorporated into a full body harness, are not allowed for use with this equipment.  
A typical PFAS includes a full body harness, connecting subsystem or component (self retracting lifeline or shock absorbing lanyard), and the necessary connectors to couple the system together.
- PFAS may only be attached to the Ladder FAS at designated locations. See Section 3.5

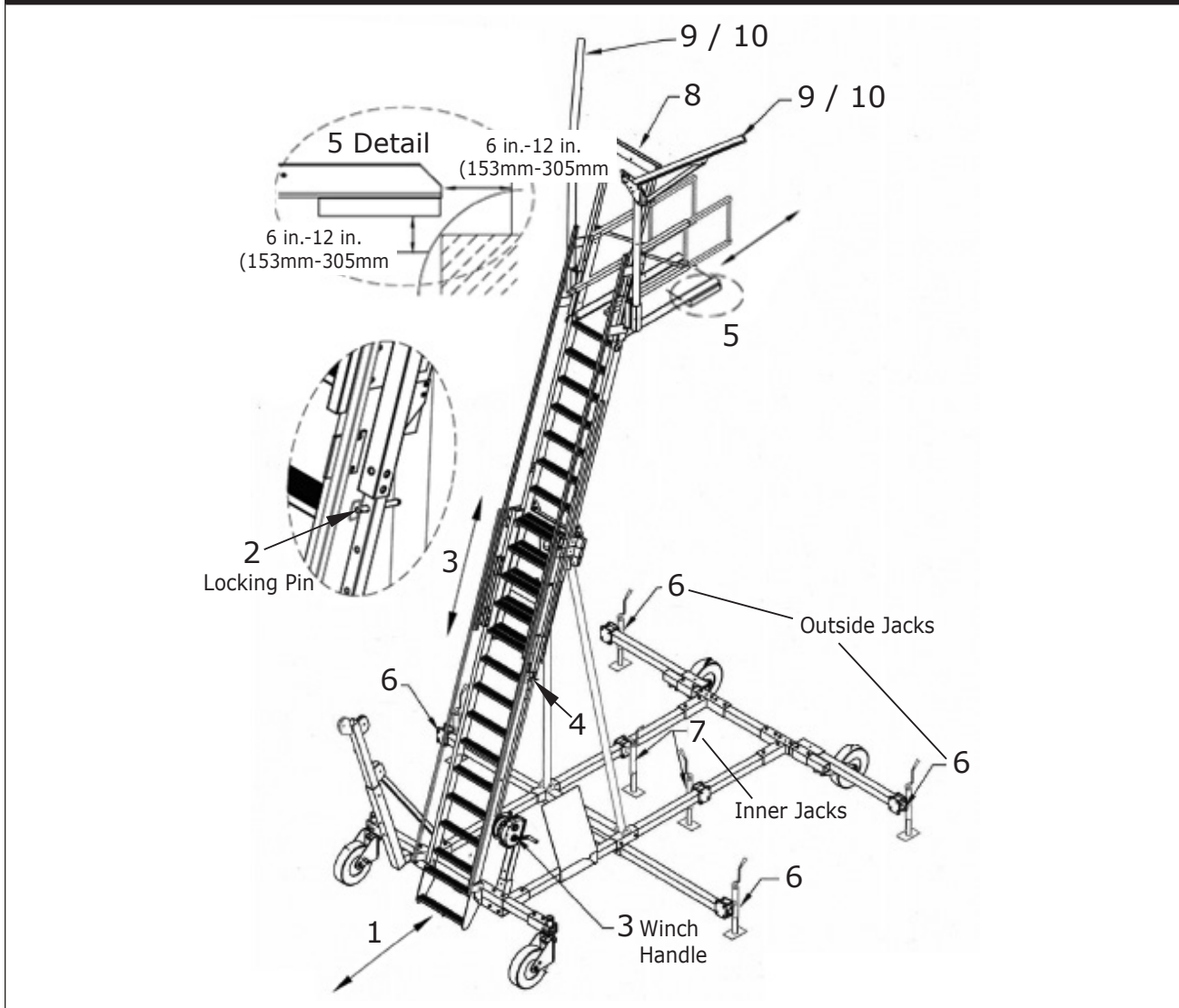
**WARNING:** Read and follow manufacturer’s instructions for the personal fall arrest equipment selected for use with the Ladder FAS.

**IMPORTANT:** Body belts are not allowed for free fall situations. Bodybelts increase the risk of injury during fall arrest in comparison to a full body harness. Limited suspension time and the potential for improperly wearing a body belt may result in added danger to the user’s health.

**3.4 TRAINING:** 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. User must also be aware of the operating characteristics, application limits, and the consequences of improper use of this equipment.

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

**Figure 4 - Procedure for Use**

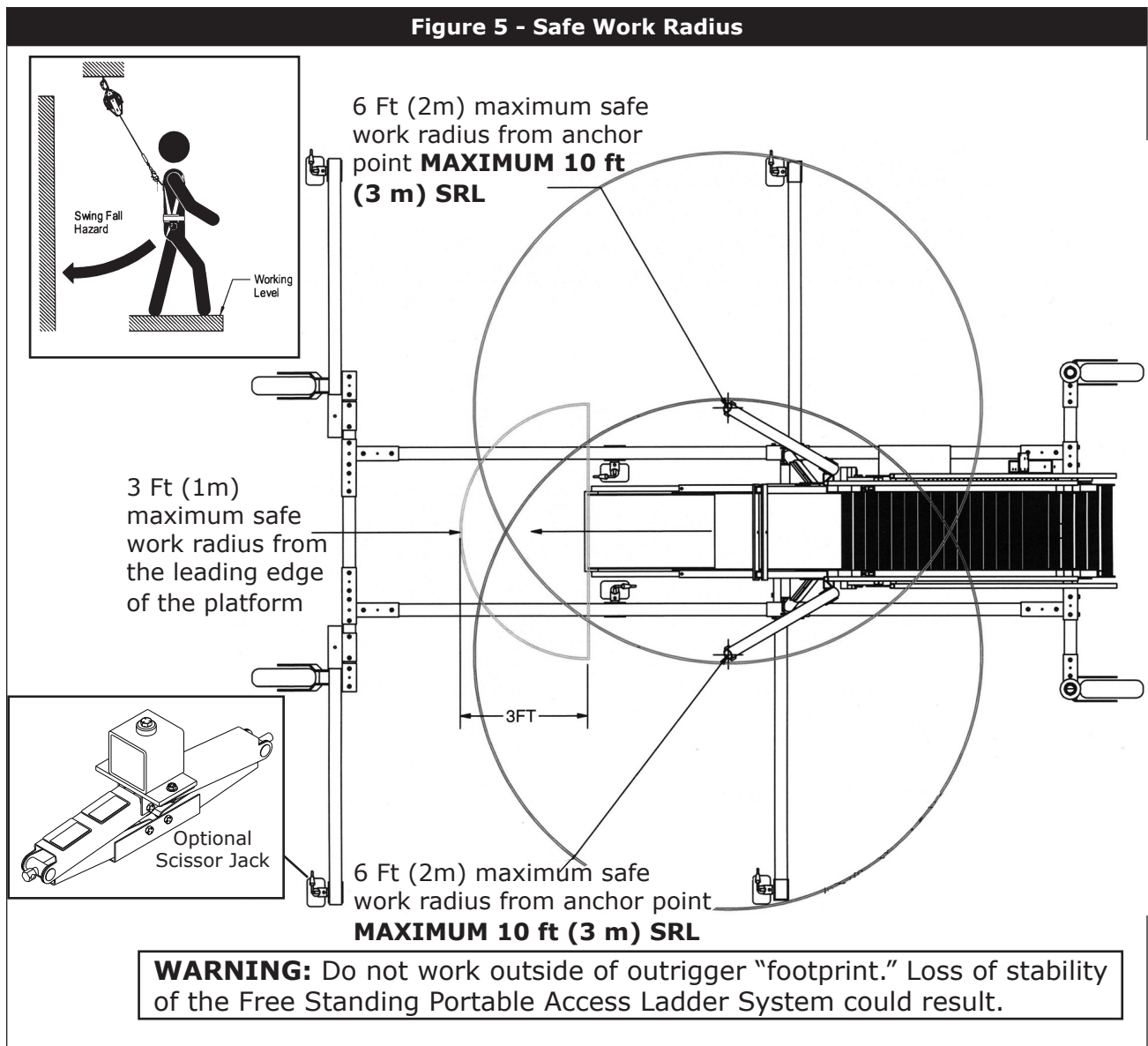


**3.5 PROCEDURE FOR USE OF THE LADDER SYSTEM:**

Step 1. Move the unit 1-3 feet (0.3-1m) away from work area/object.

Step 2. Remove 5/8 in. diameter Locking Pin.

**Figure 5 - Safe Work Radius**

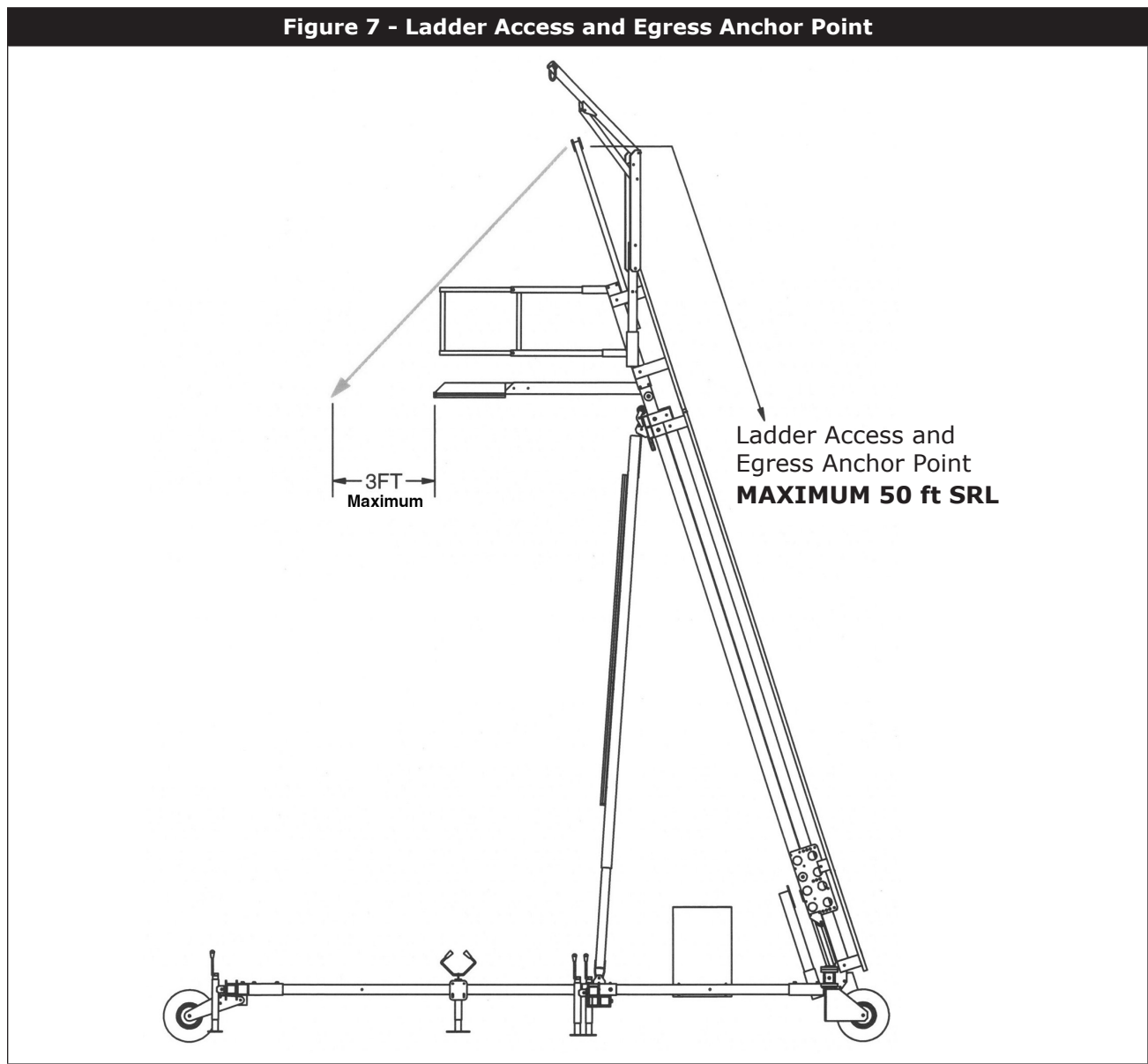
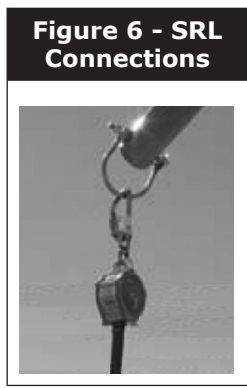


- Step 3. Adjust ladder height 6 in. to 12 in. (150-300 mm) above the work area by cranking the winch crank handle in a clockwise direction.
- Step 4. Insert the 5/8 in. diameter Locking Pin into the ladder locking mechanism tube to the first, closest hole to prevent accidental ladder movement.
- Step 5. Push the unit to position the platform 6 in. to 12 in. (150-300 mm) away from the work area/object for safe access. Wheels and jacks must be positioned over a stable, level surface, or leveled with blocks.
- Step 6. Extend the outriggers to maximum length, rotate jacks down and apply approximate pressure of 3 to 5 revolutions after initial contact with surface. Repeat for all four outside jacks. Optional Scissors Jack setup will not require rotation.
- Step 7. Rotate inner jacks down and apply light pressure by just contacting the surface.
- Step 8. You will need a tag line to access the self retracting lifeline (SRL) attached to the Overhead Anchor Point Post.

Step 9. When you reach the platform at the top, you may need a tag line to reach the davit SRLs. You must remain connected to at least one SRL while transferring connections from the Overhead Anchor Point Post to the Davit SRL. Do not remain connected to more than one SRL while working.

Step 10. A maximum of two operators can be attached to the unit using the individual davits. No more than one person can be attached to a davit at any time.

Step 11. Adjust the handrails to appropriate length for comfortable step up and down to and from the platform.



## 4.0 INSPECTION

### 4.1 VISUAL INSPECTION:

A complete visual inspection should be performed on the Ladder FAS equipment you are using prior to the operation. The following items should be checked, and the results recorded on the "Inspection and Maintenance Log" sheet at the back of this manual.

**A. Labels:** Check that all labels are clean and legible. Clean the labels if any are dirty using a mild soap and a damp cloth. Replace if any are illegible (Refer to Section 5 for a listing of all labels).

**B. Fasteners:** Check that all ladder screws and other fasteners are tight. Tighten ladder fasteners hand tight only.

Base fasteners must be checked using 15 ft. lbs (2.1 kg.m) of torque. If any are loose, tighten to 20 ft. lbs (2.8 kg.m). Refer to assembly instructions.

Contact your local dealer or DBI-SALA for any replacement fasteners that may be required.

**C. Components:** Check the components for cracks, dents, bends, or breaks. Minor cosmetic damage in the component body will not affect the function of the Ladder FAS. However, if there are major dents or any other structural damage, the unit should be removed from service and returned to the manufacturer for service.

**D. Corrosion:** Check all components for damage from corrosion. Although all components resist corrosion, working in corrosive environments can lead to damage. Inspect all structural components and fasteners for signs of damage. If corrosion damage is found, remove from service and return to the manufacturer for service.

**4.2 Maintenance:** At regular intervals perform a detailed inspection of the equipment and document the results. An 'Inspection and Maintenance Log' is included in this manual. Remove the equipment from service if deficiencies are found.

**WARNING:** Do not make alterations or additions to this equipment without prior written consent from DBI-SALA. (Only the equipment manufacturer, or persons or entities authorized in writing by the manufacturer, can make repairs to the equipment.)

**A.** Periodically clean the ladder system using mild detergent and a damp cloth.

**B.** Clean labels and replace as needed.

**C.** Lubricate the winch according to the instructions in the Winch Operator's Manual.

### 4.3 Functional Inspection

A functional check should be performed on the Ladder FAS prior to every use. The following functional tests should be done; and the results recorded on the "Inspection and Maintenance Log" at the back of this manual.

**A. System Operation and Adjustments:** The Ladder FAS contains operational parts that may include pulleys and or rollers. These parts must be carefully checked for chips, cracks, or worn areas that can cause malfunction during operation of the system.

Make sure that all the adjustment points are in full functional condition. This may include parts that contain pins, bolts, tri-screws, and adjusting screws. There are also mechanical adjustments which may include, adjustable legs, sleeves, adjustable sliding blocks, and brackets. These areas must be kept clean from debris and corrosion for proper functional use. If any part of the system that includes all listed items above becomes damaged contact DBI-SALA for parts and/or service.

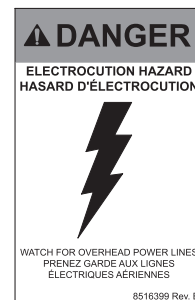
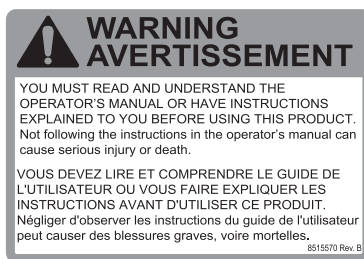
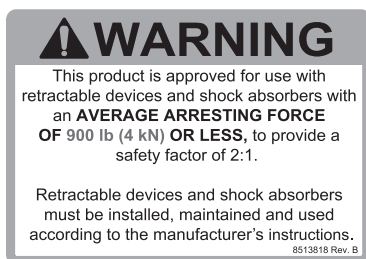
**B. SRL and other Accessory Inspection:** Refer to the manufacturer's operator's manual or instructional material for proper functional inspection procedures for SRL's and accessories not covered by this manual.

**WARNING:** If the ladder system has been subjected to impact forces from fall arrest, it must be immediately removed from service and inspected. If the ladder system fails to pass the inspection, do not use. The equipment must be sent to an authorized service center for repair.

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

### 5.0 WARNING LABELS

The following labels must be securely attached to the Ladder FAS and fully legible. Proper maintenance of the labels must be established by the operator/entrant to keep system use safe. If labels are damaged, the operator/entrant must enforce a lockout/tagout procedure. New labels are available from the local dealer or manufacturer.



(CE Only)



## **6.0 SPECIFICATIONS**

- **Working Load:** Maximum of two persons with a combined weight of 310 lbs. (141 kg) per person.
- **Materials and Construction:**

General Construction:	Welded Steel/Aluminum
Finish (Aluminum):	Yellow Powder Coat
Hardware Material:	Zinc Plated

## **7.0 TERMINOLOGY**

**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).

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

**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 this standard.

**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 this standard.

**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.





## LIMITED LIFETIME WARRANTY

**Warranty to End User:** 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 authorised 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. THIS WARRANTY IS THE ONLY WARRANTY APPLICABLE TO OUR PRODUCTS AND IS IN LIEU OF ALL OTHER WARRANTIES AND LIABILITIES, EXPRESSED OR IMPLIED.



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