

## **INSTRUCTION MANUAL**

This manual is intended to meet the Manufacturer's Instructions and should be used as part of an employee training program as required by OSHA

## **ADVANCED**

## **Portable Fall Arrest Post**

Model Numbers:

8510816 8516691 8516692 8516693 8516997 8517266 8517362 8520041

8530071 8530155 8530614



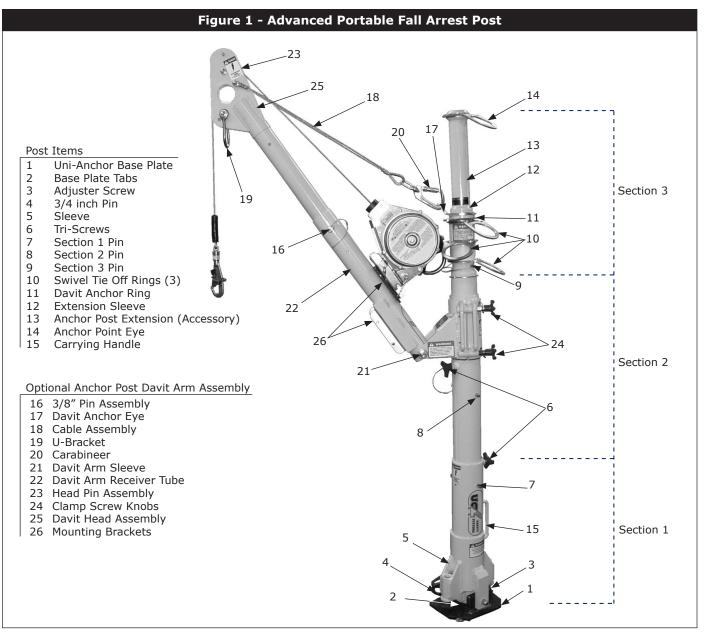
## **DESCRIPTION**

The ADVANCED PORTABLE FALL ARREST POST is a modular unit consisting of a 3 section tubular body, constructed of welded aluminum, featuring:

- 1. A head assembly equipped with 3 independent swivel tie-off rings.
- 2. Various accessories to address different situations.
- 3. Adjusting screws for vertical leveling of the Fall Arrest Post when installed on inclined surfaces.
- 4. Featuring adjustable height option from 33.0 in. (84 cm) to 57.5 in. (146 cm).

FORM NO: 5902422

REV: C



## 1.0 APPLICATION

- **1.1 PURPOSE:** DBI-SALA's Advanced Portable Fall Arrest Post is designed as an anchorage connector for a person(s) working at a height to provide protection against fall hazards. Various accessories address a variety of fall arrest requirements, as well as confined space entry/retrieval and rescue needs.
- **1.2 LIMITATIONS:** The following application limitations must be recognized and considered before using this product:
  - **A. CAPACITY:** The Portable Fall Arrest Post is designed to be used as an anchorage connector for up to three persons. The maximum combined weight (including clothing, tools and equipment) of each person is 310 lbs (141 kg). Use of various accessories may reduce the number of workers that may be anchored.

#### **B. APPLICATION RESTRICTIONS:**

**IMPORTANT:** Always install the Portable Fall Arrest Post to the following strength requirements to avoid potential incompatability with different models:

Moment Requirement	Vertical Load Requirement
190,000 in-lbs (20.8 kN-m)	4,200 lbs force (18.7 kN)

\* Install to this strength requirement whenever possible to avoid potential imcompatability with different models

A maximum of three (3) persons may be tied off to the Advanced Portable Fall Arrest Post at any one
time. Use of various accessories may reduce the number of persons that may be anchored. Consult
product specification sheets for all components of any system, and be aware of any restrictions before
using the equipment.

- The Advanced Portable Fall Arrest Post must be in a vertical position any time it is being used as a fall arrest anchor point.
- Installed Post and accessories must be 72 inches (183 cm) or less from any edge where a fall may occur.
- Fall arrest equipment (retractable devices, shock absorbers, etc.) must conform with the current ANSI and OSHA standards.
- The Advanced Portable Fall Arrest Post must only be used with accessories supplied or approved by Capital Safety.
- The HLL must be installed using the chart in Figure 6; giving due consideration to strength limitations at various positions.
- The Advanced Portable Fall Arrest Post must be used with a tie-back in Horizontal Lifeline applications at any extended height. Failure to follow this instruction may result in serious injury or death.
- Each installation must be approved to local standards by a qualified engineer.

## 2.0 SET UP AND USE OF THE PORTABLE FALL ARREST SYSTEM

#### 2.1 SET UP:

The DBI-SALA Advanced Portable Fall Arrest Post is designed for use with a variety of portable and permanent bases. Consult the appropriate section of this manual or separate manuals when setting up or installing any DBI-SALA Portable Fall Arrest Post Bases.

- Step 1: Before setting up for any work at heights, fall arrest, or confined space entry be sure that you have all equipment required to safely carry out the work to be performed, and to meet all applicable standards and regulations for your area.
- Step 2: Set-up or locate the Portable Fall Arrest System Base intended for use in the application according to the instructions in the applicable section of this manual. Ensure that the base is structurally sound and free of any corrosion or contamination which may affect the insertion of the connecting pin or the structural integrity of the base. Regulations governing Fall Protection, Confined-Space Entry/ Retrieval and Rescue Procedures vary with jurisdiction. It is the responsibility of the owner and/or user of this equipment to be aware of applicable regulations and ensure that equipment selected for each job complies with these requirements. Refer to the appropriate section of this or any other applicable manuals for specific information on the installation and use of the type of base you are using prior to using the system.
- Step 3: As shown in Figure 2, insert the Portable Fall Arrest Post between the base plate tabs (2) and visually align the ¾ in. holes as shown in Figure 3.

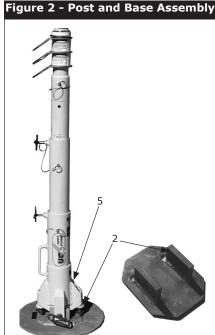
Secure the Post by inserting the ¾ in. (19 mm) pin (4) Figure 3 through the base plate tabs

Figure 2 (2) and sleeve (5) Figure 2. Make sure the pin fully engages both the base plate tabs (2) and the entire Post to lock the Post firmly in place.

Step 4: Extend the post as shown in Figure 4 A by loosening tri-screw (6) and removing Section 1 pin (7) from Section 1. Lift Section 2 and align the pin holes, secure Section 2 in Section 1 by fully engaging Section 1 pin (7). The post should look like Figure 4 B.

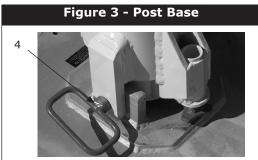
Loosen tri-screw (6) Figure 4 B and lift Section 3. Align pin holes with Section 2, Figure 4 B and secure the Post Section 3 by using Section 2 pin (8). The post should look like Figure 5. Hand tighten both tri-screws Figure 4 (6).

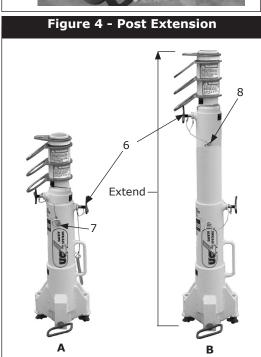
- Step 5: The Portable Fall Arrest Post must be in a vertical position at all times, as shown in Figure 5, when it is being used as a fall arrest anchor point. Depending on the type of base you are using, the Post may be leveled by using the adjuster screws (3) Figure 5, the Uni-Anchor Plate (1) Figure 5, or a combination of these. The adjuster screws are alternately loosened and tightened to level the Post.
- Step 6: Install any accessories (eg. Anchor Post Extension) that installs in the extension sleeve (10) at the top of the Portable Fall Arrest Post. Refer to the applicable section of this or other applicable accessory manuals for any accessories being used with this system.

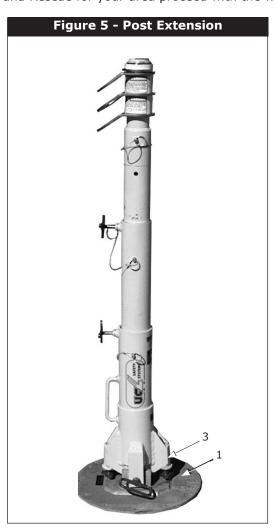


- Step 7: Depending on the nature of the entry and the standards and regulations governing Confined Space Entry/Retrieval and Rescue requirements in your area, a Personal Fall Arrest System (PFAS) connected to the entrant may be required. It is the responsibility of the operator to be aware of these requirements and follow them. Always wear a full body harness when attached to a PFAS.
- Step 8: Once the system is set-up inspect all components, fasteners, and other parts for wear, damage, corrosion, looseness, or any other condition that may reduce the integrity of the system.

  Components which are worn, damaged, corroded, or loose, must be tagged, marked with "DO NOT USE" or like wording and prevented from being used until repaired or replaced as required.
- Step 9: Following all instructions contained in the manufacturer's instructions for each PFAS component or any other devices being used, the appropriate section of this manual or other manuals for any DBI-SALA Accessories being used, and all applicable standards or regulations governing Fall Protection, Confined Space Entry/ Retrieval and Rescue for your area proceed with the work.





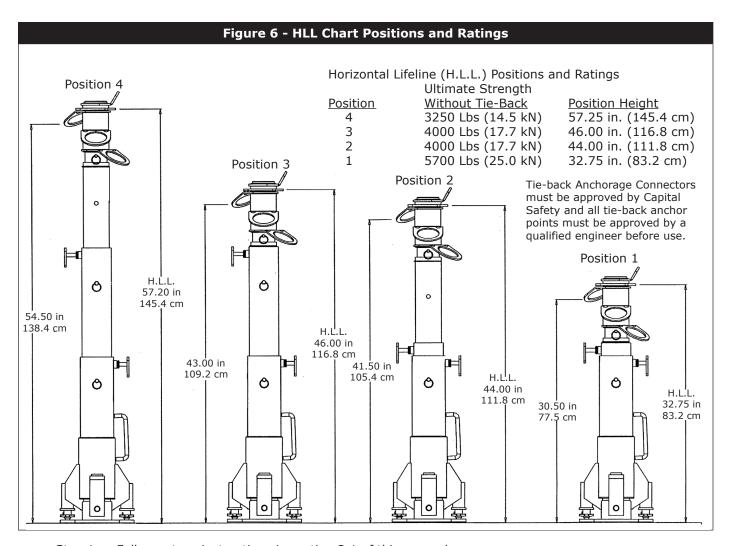


## 2.2 USING THE PORTABLE FALL ARREST POST FOR HORIZONTAL LIFELINE (HLL) APPLICATIONS:

The DBI-SALA Advanced Portable Fall Arrest Post can be used for most temporary Horizontal Lifelines (HLL) applications, therefore using existing mounting bases as the temporary base for HLL applications. See Figure 5 for location of HLL Anchor Ring

#### 2.2.1 SETTING UP THE PORTABLE FALL ARREST POST FOR HLL USE:

When using this post for HLL applications, it is critical to know when to use a tie-back and when not to use a tie-back to support the HLL loads. Refer to the chart in Figure 6 to confirm what loads can be sustained by the Portable Fall Arrest Post unsupported by a tieback. Follow all labels carefully when setting up for HLL applications and refer to the chart when unsure of load ratings.

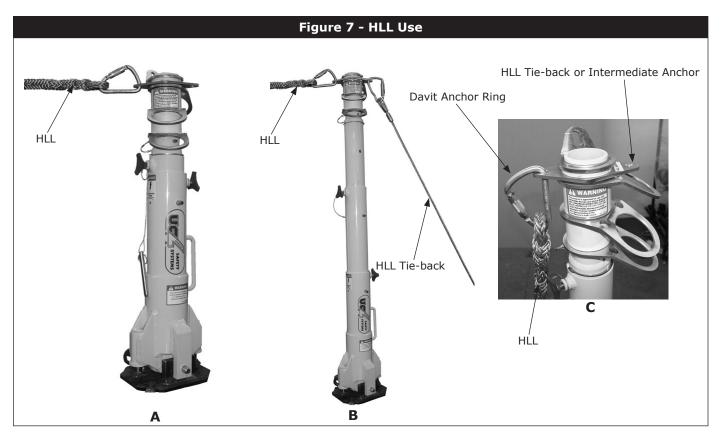


- Step 1: Follow set-up instructions in section 2.1 of this manual.
- Step 2: The post can be used without the installation of a tie-back as shown in Figure 7 A. Refer to the "HLL Chart Positions & Ratings", Figure 6 for maximum ratings without the use of a tie-back.
- Step 3: Using the mast with the second and/or third stage erected (Positions 4, 3 & 2) and HLL load ratings that exceed the load rating shown in the chart, Figure 6, must have tie-backs installed as shown in Figure 7 B.
- Step 4: Using the davit arm with a HLL requires the third section, (Positions 4 & 3) of the mast to be erected to install the davit arm sleeve. Refer to the chart to verify tie-back use.
  - Refer to section 2.2.5 of this manual for Davit Arm set-up.
- Step 5: Install HLL using the carabineer supplied with the HLL assembly to the HLL Anchor Ring provided on the mast as shown in Figure 7 C. Follow all manufactures instruction carefully when installing a HLL.

If you require a tie-back, install the tieback using the opposite eye across from the installed HLL on the HLL Anchor Ring.

Tie-back anchors must be designed and approved by the manufacturer (Capital Safety) and the structure mounting requirements approved by a qualified engineer. Call Capital Safety to purchase the suitable tie-back for the application.

The DBI-SALA Portable Fall Arrest Post with HLL Anchor Ring can also be used as an intermediate for a HLL to spanning across longer distances.



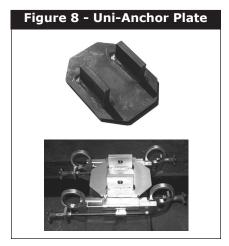
#### 2.2.2 MOUNTING BASES

**Uni-Anchor Plates**: Uni-Anchor Plates are designed to be permanently welded to existing structures in locations of frequent work, or where use of portable base is impractical. These mounting plates are compatible with all DBI-SALA Advanced Portable Fall Arrest Posts and Accessories. Uni-Anchor Plates permanently address Portable Fall Arrest Post mounting base requirements for steel structures.

**Installing Uni-Anchor Plates**: Specific installation instructions are beyond the scope of this product operator's manual. Consult DBI-SALA Safety Systems Product Specification Sheets for detailed information on welding procedures, mounting requirements and application restrictions.

**Installing Portable Mounting Bases**: Specific installation instructions are beyond the scope of this product operator's manual. Consult Instruction 8516997 (I-Beam Clamp Base) for detailed information on mounting procedures, mounting requirements and application restrictions.

**Set-up of the Portable Fall Arrest Post:** Install and level the Portable Fall Arrest Post as outlined in Section 2.1.



## 2.2.3 PORTABLE FALL ARREST POST ACCESSORIES

The DBI-SALA Advanced Portable Fall Arrest Post may be equipped with a variety of accessories to meet additional confined space entry/retrieval, rescue, or fall protection requirements. Use of these accessories may affect the rating and load carrying capacities of the Portable Fall Arrest Post. Be aware of any limitations imposed on the system by the use of various accessories, and follow any restrictions given on the various product specification sheets, warning labels, this manual and/or related manuals.

Shock absorbers and retractable devices must be installed, maintained and used according to the manufacturer's instructions.

#### 2.2.4 14" ANCHOR POST EXTENSION

**WARNING:** This 14-inch Anchor Post Extension and Davit Arm Assembly is rated for a working load of 310 lbs (141 kg) when used with approved components in an approved configuration. Refer to component specifications and rating stickers to establish system design factor.

#### **APPLICATION RESTRICTIONS:**

- This Extension is to be used with the Advanced Portable Fall Arrest Post only.
- The Extension may be used to anchor one (1) person only.
- Installed Post and accessories must be 72 inches (183 cm) or less from any edge where a fall may occur.
- Use of the Extension de-rates the Advanced Portable Fall Arrest Post assembly to a maximum of two (2) persons tied off to the swivel tie-off head.
- The Advanced Portable Fall Arrest Post must be in a vertical position any time it is being used as a fall arrest anchor point.
- Retractable devices and shock absorbers must be installed and used in accordance with the manufacturer's instructions.
- Each installation must be approved to local standards by a qualified engineer.

The 14 inch Post Extension (Model 8516692) is designed to provide a single fall arrest tie-off point 14 inches (35.6 cm) above the post's swivel tie-off rings (See Figure 9).

For use of the Anchor Post Extension & Davit Arm Assembly together refer to Section 2.2.6 of this manual.

**Set-Up of the 14 inch Anchor Post Extension:** Install the Advanced Portable Fall Arrest Post following the installation procedure in Section 2.1.

- Step 1: Shown in Figure 9, insert the 14 inch Post Extension (13) into the post (12). Pin the post into position by aligning the holes and inserting the ½ inch pin (9) completely through the Post.
- **Step 2:** Attach the Fall Arrest Device or PFAS to the anchor point eye (14).

## Using the 14 inch Anchor Post Extension

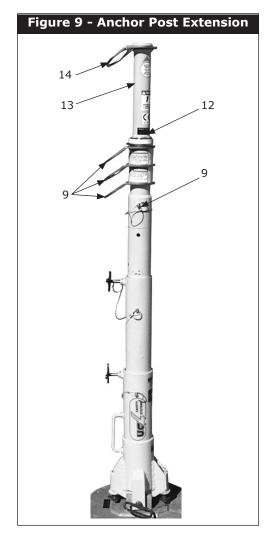
Connect a shock absorber/ retractable device using a sufficiently rated carabineer to anchor point eye (14).

**WARNING:** A maximum 3 persons can be tied off to the DBI-SALA Advanced Portable Fall Arrest System at any given time with the use of approved accessories or horizontal lifelines.



## **APPLICATION RESTRICTIONS:**

- This Extension is to be used with the Advanced Portable Fall Arrest Post only.
- Use of this device de-rates the Advanced Portable Fall Arrest System Anchor Post assembly to a maximum of two (2) persons tied off to the swivel tie-off head.
- Installed Post and accessories must be 72 inches (1830mm) or less from any edge where a fall may occur.
- The Advanced Portable Fall Arrest Post must be in a vertical position any time it is being used as a fall arrest anchor point.
- Retractable devices and shock absorbers must be installed and used in accordance with the manufacturer's instructions.
- Each installation must be approved to local standards by a qualified engineer.
- The Anchor Post Davit Arm (Model 8516693) is designed to provide a means of access/egress, rescue, and material handling applications (See Figures 1 and 10). Use of the Anchor Post Davit Arm de-rates the Advanced Portable Fall Arrest Post to only two anchor points on the swivel tie-off rings.



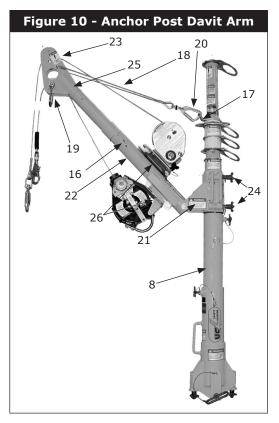
**Set-Up of the Anchor Post Davit Arm Assembly:** Install the Anchor Post/ Davit Arm Assembly starting with and following the system assembly procedure in Section 2.1.

- **Step 1:** Shown in Figure 11, clamp the Davit Arm Sleeve (21) over Section 3 of the Advanced Portable Fall Arrest Post
- **Step 2:** Install and secure the Davit Arm Sleeve (21) by closing the sleeve around section 3 and hand tightening the clamp knob screws (24) as shown in Figure 11.
- **Step 3**: Insert the Davit Head Assembly (23) and align one of the three 3/8 in pin holes in the Davit Arm Receiver Tube. Using the pin (16) secure the Davit Arm into position and to vary the offset.
- **Step 4:** Shown in Figure 11, secure the cable assembly (18) to the Advanced Portable Fall Arrest Post using the carabineer (20) provided and connecting it to the Davit Arm Anchor Eye (17).

## 2.2.6 USING THE DAVIT ARM ASSEMBLY

The Davit Arm Assembly is designed with adjustable offset and 360 degree rotation. This Davit Arm Assembly allows the combined use of an entry/ retrieval winch and a self-retracting lifeline (SRL).

**Step 1:** Adjust the offset by pulling the pin assembly (16) and selecting the one of three holes offered in the Davit Arm receiver tube (22) as shown in Figure 12.



#### 2.3 RESCUE

The Davit arm can be rotated 360 degrees in a rescue/retrieval situation so an injured worker can be moved to a safe environment.

The Advanced Portable Fall Arrest Post must be used in a vertical position at all times to effectively rotate the Davit Arm. The Advanced Portable Fall Arrest Post may be used as a fall arrest anchor point during a rescue scenario. Alternative anchor points for fall protection use should be identified and planned for use during a rescue scenario.

## **Mounting Brackets for Winch and SRL**

The mounting brackets are for use with the Davit Arm Assembly. Winches and SRL's must have a suitable working load.

## Set-up of the Mounting Brackets

The mounting brackets are bolted onto the Davit Arm Assembly when shipped from the manufacturer. The brackets are arranged to most common Winch/ SRL configuration. If these brackets need to be repositioned to suit your application, remove the two bolts securing the bracket to the Davit Arm Receiver Tube (9) shown in Figure 13, reposition to other bracket mount location and replace bolts and tighten.

**WARNING:** The Adaptor Brackets for your winch or SRL must be offset to the side that the crank handle is on to eliminate interference between the crank handle and the Davit Arm Assembly and the mounting brackets. Not following these instructions can impair retrieval capabilities that can cause serious injury or death.

## **Using the Mounting Brackets**

Install and use the winch and/or SRL according to manufacturer's instructions.

Proper operation and maintenance of the winch and/or SRL are critical to the safe usage of your DBI-SALA Advanced Portable Fall Arrest Post.

## Winch and SRL Operation

Shown with the accessories in Section 2.2.5 is the DBI-SALA "Basic" Man-Rated Winch available for use with the DBI-SALA Advanced Portable Fall Arrest Post. The winch is necessary for worker positioning and rescue situations when using the Davit Arm Assembly. The winch is available in a variety of lifeline capacities, and lifelines are available in a variety of lengths and materials. Winches and SRL's must used and maintained in accordance with the manufacturer's instructions, please refer to the instruction manual provided with your winch or SRL.

#### 3.0 INSPECTION

**3.1 FREQUENCY:** Before each use visually inspect per steps listed in Section 3.2 and 3.3.

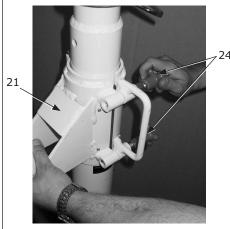
#### 3.2 INSPECTION STEPS:

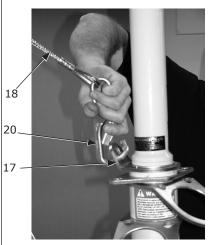
- **Step 1.** Inspect the Advanced Portable Fall Arrest Post for physical damage. Look carefully for any signs of cracks, dents or deformities in the metal. Make certain the post, brackets and other components are not deformed in any way and that they pivot correctly.
- **Step 2.** Inspect the Advanced Portable Fall Arrest Post for signs of excessive corrosion.
- **Step 3.** Ensure the condition of the mounting surface will support the anchor plate loads. An anchor plate to a deteriorated surface should not be used.
- **Step 4.** Ensure the anchor plate is securely attached to the mounting surface. See section 2.1.
- **Step 5.** Inspect each system component or subsystem (i.e. self retracting lifeline, full body harness, etc.) per associated manufacturer's instructions.
- **Step 6.** Record the inspection date and results on the '*Inspection and Maintenance Log'*.
- **3.3** If inspection reveals an defective condition, remove unit from service immediately and destroy, or contact a factory authorized service center for repair.

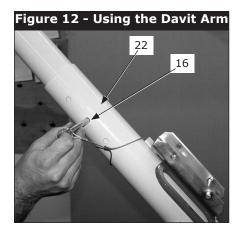
**IMPORTANT:** Only Capital Safety or parties authorized in writing may make repairs to this equipment.

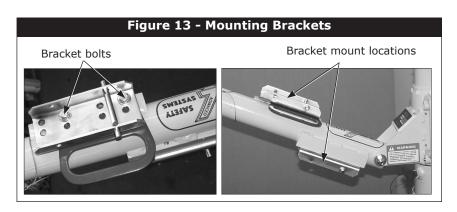


Figure 11 - Anchor Post Set Up









#### 4.0 MAINTENANCE - SERVICING - STORAGE

- **4.1** Clean the Advanced Portable Fall Arrest Post with a mild soap detergent solution. Excessive build-up of dirt, tar, etc. may prevent the system from working properly. If you have any questions concerning the condition of your Advanced Portable Fall Arrest Post or have any doubt about putting it into service, contact Capital Safety immediately. Refer to manufacturer's instruction for maintenance, servicing, and storage procedures of subsystem components.
- **4.2** Additional maintenance and servicing procedures (i.e. replacement parts) must be completed by a factory authorized service center. Authorization must be in writing.

#### 5.0 SPECIFICATIONS

#### **MATERIALS:**

**MATERIALS AND FINISH:** Zinc plated or powder coated, 6061-T6 aluminum anodized, steel anchor plate Hardware: Grade 5/Grade 8 zinc plated.

**CAPACITY:** The maximum working load for this product is three persons with a combined weight of 310 lbs. (141 kg) per person.

**STATIC LOAD CAPACITY:** Strength of system maintains a minimum safety factor of 2 as required by OSHA when according to this user instruction manual (reference OSHA 1926.502 and 1910.66).

**WEIGHT:** Post 38 lbs. (17.5 kg); 14 inch extension 5 lbs. (2.2 kg); rescue davit 20.5 lbs. (9.3 kg)

**SIZE (COLLAPSED):** 33 inch (840mm) height **SIZE (EXTENDED):** 57.5 inch (1460mm) height

#### LIMITED LIFETIME WARRANTY

Warranty to End User: D B Industries, LLC 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.

CAPITAL SAFETY'S WARRANTY APPLIES ONLY TO THE END USER. THIS WARRANTY IS THE ONLY WARRANTY APPLICABLE TO OUR PRODUCTS AND IS IN LIEU OF ALL OTHER WARRANTIES AND LIABILITIES, EXPRESSED OR IMPLIED. CAPITAL SAFETY EXPRESSLY EXCLUDES AND DISCLAIMS ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, AND SHALL NOT BE LIABLE FOR INCIDENTAL, PUNITIVE OR CONSEQUENTIAL DAMAGES OF ANY NATURE, INCLUDING WITHOUT LIMITATION, LOST PROFITS, REVENUES, OR PRODUCTIVITY, OR FOR BODILY INJURY OR DEATH OR LOSS OR DAMAGE TO PROPERTY, UNDER ANY THEORY OF LIABILITY, INCLUDING WITHOUT LIMITATION, CONTRACT, WARRANTY, STRICT LIABILITY, TORT (INCLUDING NEGLIGENCE) OR OTHER LEGAL OR EQUITABLE THEORY.

## 6.0 LABELING

The following labels must be securely attached and full legible:

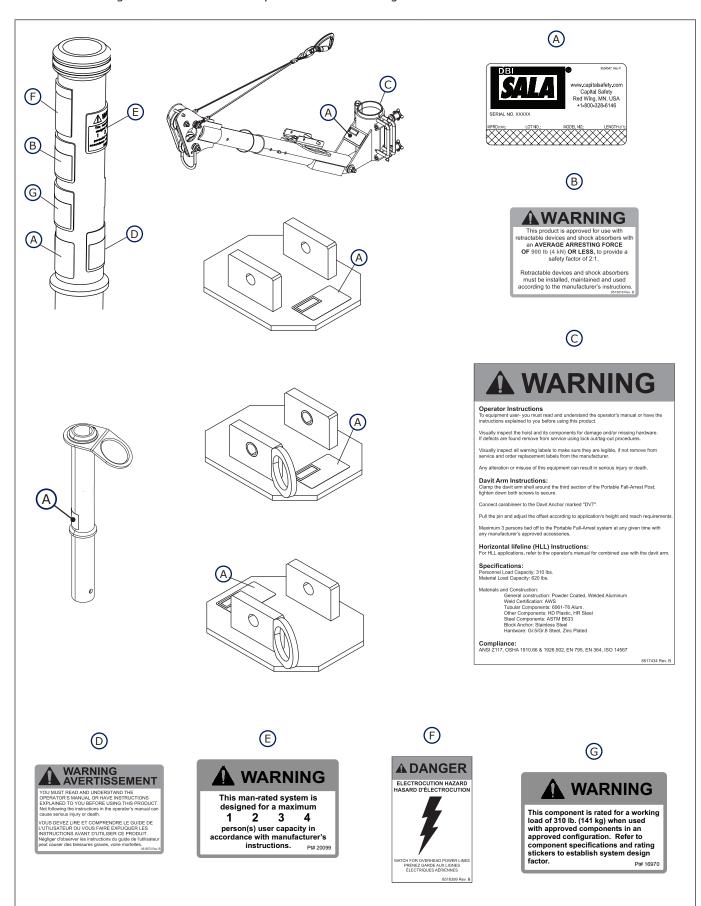


Table 1 - Inspection and Maintenance Log		
Inspection Date:	Inspected By:	
Serial Number(s):	Date Purchased:	
Model Number:	Date of First Use:	
Corrective Action/Maintenance:	Approved By:	
	Date:	
Corrective Action/Maintenance:	Approved By:	
	Date:	
Corrective Action/Maintenance:	Approved By:	
	Date:	
Corrective Action/Maintenance:	Approved By:	
	Date:	
Corrective Action/Maintenance:	Approved By:	
	Date:	



Global Leader in Fall Protection

#### USA

3833 SALA Way Red Wing, MN 55066-5005 Toll Free: 800.328.6146 Phone: 651.388.8282 Fax: 651.388.5065 solutions@capitalsafety.com

#### Brazil

Rua Anne Frank, 2621 Boqueirão Curitiba PR 81650-020 Brazil Phone: 0800-942-2300 brasil@capitalsafety.com

## Mexico

Calle Norte 35, 895-E Col. Industrial Vallejo C.P. 02300 Azcapotzalco Mexico D.F. Phone: (55) 57194820 mexico@capitalsafety.com

#### Colombia

Compañía Latinoamericana de Seguridad S.A.S. Carrera 106 #15-25 Interior 105 Manzana 15 Zona Franca - Bogotá, Colombia Phone: 57 1 6014777 servicioalcliente@capitalsafety.com

#### Canada

260 Export Boulevard Mississauga, ON L5S 1Y9 Phone: 905.795.9333 Toll-Free: 800.387.7484 Fax: 888.387.7484 info.ca@capitalsafety.com

# EMEA (Europe, Middle East, Africa) EMEA Headquarters:

5a Merse Road North Moons Moat Redditch, Worcestershire B98 9HL UK Phone: + 44 (0)1527 548 000 Fax: + 44 (0)1527 591 000 csgne@capitalsafety.com

France: Le Broc Center Z.I. 1re Avenue - BP15 06511 Carros Le Broc Cedex

France
Phone: + 33 04 97 10 00 10
Fax: + 33 04 93 08 79 70
information@capitalsafety.com

#### **Australia & New Zealand** 95 Derby Street

Silverwater Sydney NSW 2128 Australia Phone: +(61) 2 8753 7600 Toll-Free: 1800 245 002 (AUS)

Toll-Free: 1800 243 002 (A03 Toll-Free: 0800 212 505 (NZ) Fax: +(61) 2 8753 7603 sales@capitalsafety.com.au

## Asia

Singapore:
69, Ubi Road 1, #05-20
Oxley Bizhub
Singapore 408731
Phone: +65 - 65587758
Fax: +65 - 65587058
inquiry@capitalsafety.com

Shanghai:

Rm 1406, China Venturetech Plaza 819 Nan Jing Xi Rd, Shanghai 200041, P R China Phone: +86 21 62539050 Fax: +86 21 62539060 inquiry@capitalsafety.cn

