



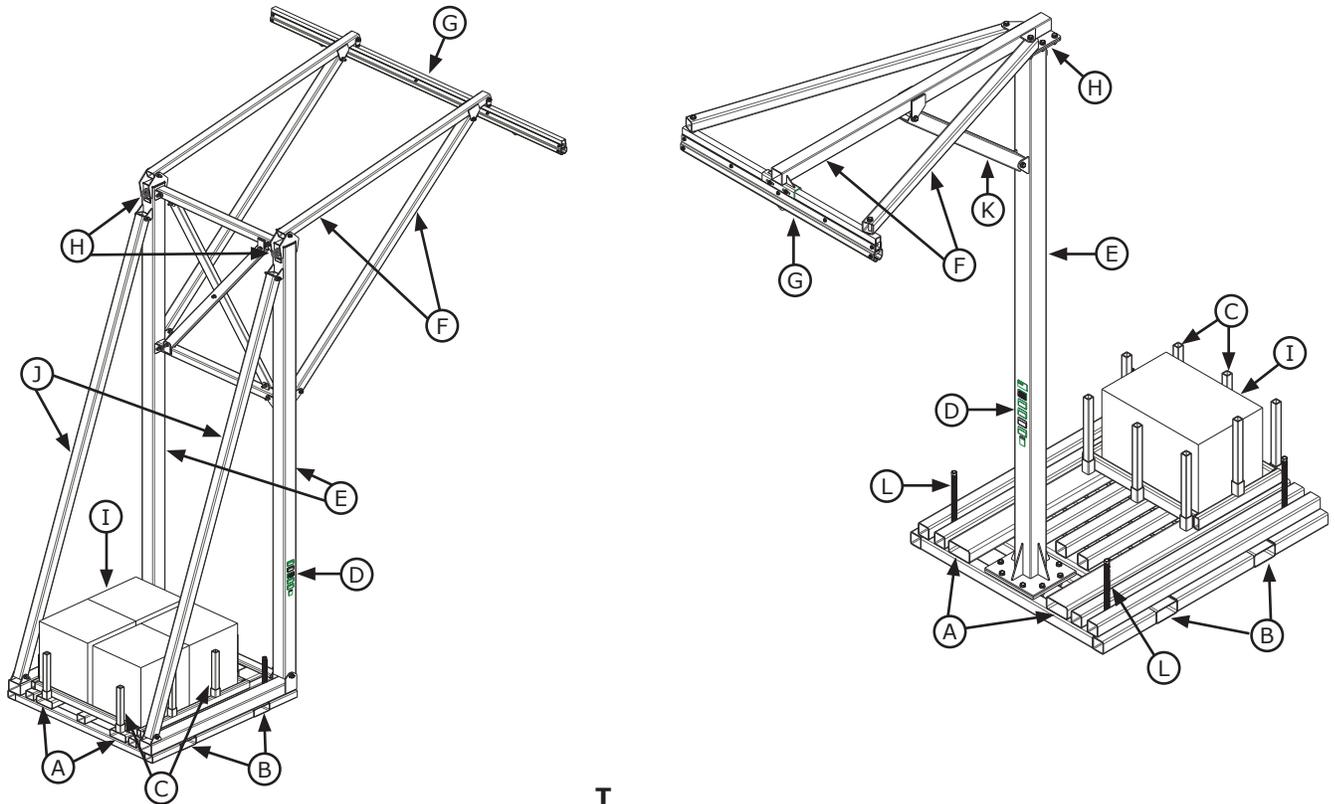
The Ultimate in Fall Protection



USER INSTRUCTION MANUAL Counterweight Rail Fall Arrest System (FAS)

This manual is intended to meet industry standards, including OSHA and ANSI Z359.1-2007, and should be used as part of an employee training program as required by OSHA.

Figure 1 - Counterweight Rail Fall Arrest Systems



A	Primary Forklift Pockets	B	Alternate Forklift Pockets	C	Counterweight Containment Bars
D	Safety Labels	E	Vertical Support Beams	F	Rail Supports
G	Glide Rail	H	Material Lifting Rings	I	Counterweight
J	Tie-back Supports	K	Gusset	L	Leveling Feet

WARNING: This product is part of a personal fall arrest system¹. The user or rescuer² must read and follow the manufacturer's instructions for each component or part of the complete system. These instructions must be provided to the user/rescuer utilizing this equipment. The user/rescuer must read and understand these instructions or have them explained to them before using this equipment. Manufacturer's instructions must be followed for proper use and maintenance of this product. Alterations or misuse of this product or failure to follow instructions may result in serious injury or death.

IMPORTANT: If you have questions about 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 in Section 9 of this manual.

- 1 Fall Arrest System:** A system that prevents the worker from colliding with an obstruction or lower level by arresting a fall.
- 2 Rescuer:** Person or persons other than the rescue subject acting to perform an assisted rescue by operation of a rescue system.

1.0 APPLICATIONS

1.1 PURPOSE: Personal Protective Equipment against falls from a height

The Counterweight Rail Fall Arrest System (Figure 1) combines easy access to elevated work areas with fall protection from the ground for the duration of the work performed. The system includes a Horizontal Rail Assembly with Trolleys that ride in Track Rails to any position along the Rail Assembly. The Trolleys serve as attachment points for the anchorage of a Personal Fall Arrest System (PFAS). The system can be moved by use of a lift truck or maintenance vehicle when equipped with proper accessories.

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

- A. **ASSEMBLY:** The rail system must be assembled in accordance with the requirements stated in Section 4.
- B. **PERSONAL FALL ARREST SYSTEMS:** Personal Fall Arrest Systems (PFAS) used with the rail system must meet applicable state and federal regulations, or CE regulations, and the requirements stated in this instruction.
- C. **CAPACITY:** The maximum working load for this product is determined by the number of trolleys and is specified by system labeling. The maximum weight of one person (including tools, clothing, and PFAS) is 310 lbs. (141 kg). Only one person and one PFAS may be connected to a Trolley.
- 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, electrical hazards, explosive or toxic gases, moving machinery, abrasive surfaces, or sharp edges. Contact Capital Safety 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 local standards, national standards, and OSHA requirements, for more information on the application of this and associated equipment.

2.0 SYSTEM REQUIREMENTS

2.1 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.

2.2 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 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 (22.2kN). 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 OSHA.

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.

Capital Safety 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. 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.

NOTE: 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. 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 under load.

Figure 2 - Unintentional Disengagement (Rollout)

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.

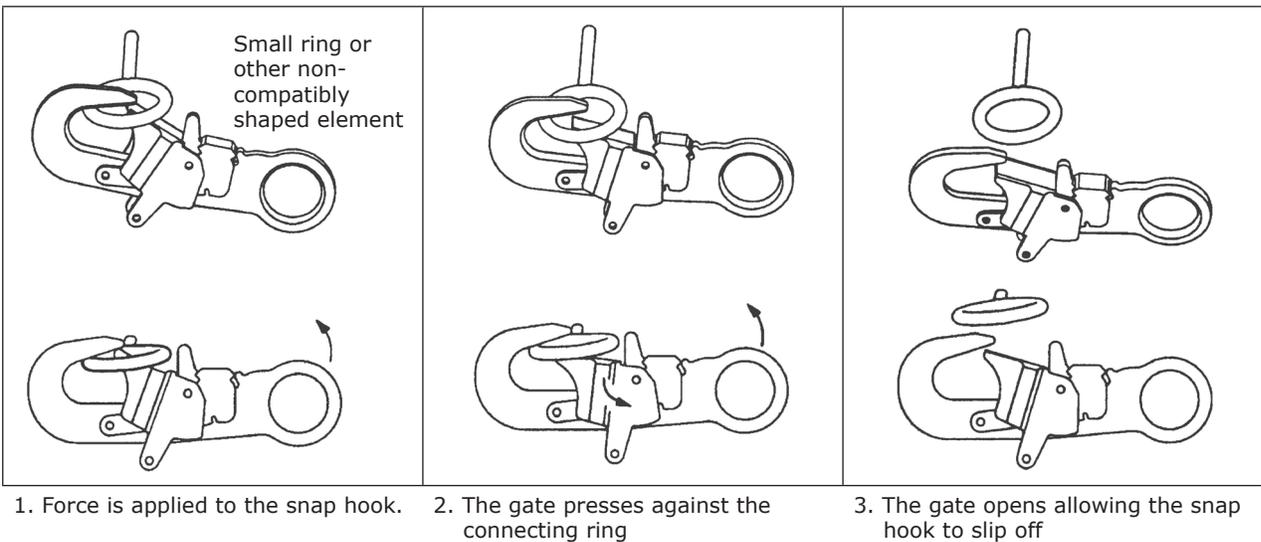
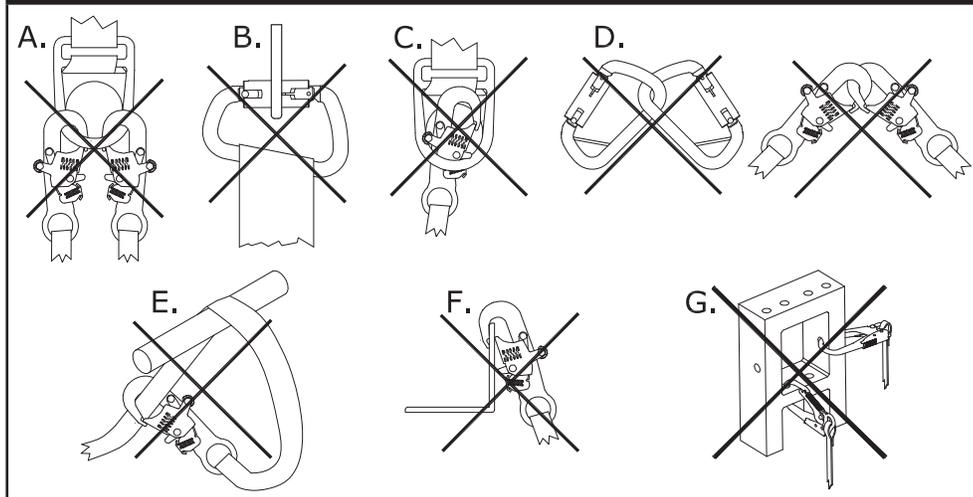


Figure 3 - Inappropriate Connections



3.0 TROLLEYS

Glide Rail Trolleys: Table 1 presents the Trolley option and defines the Trolleys for your frame system.

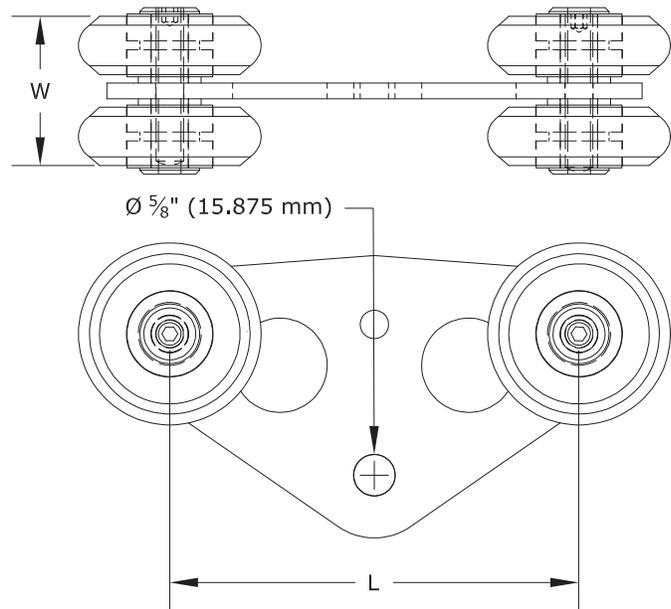
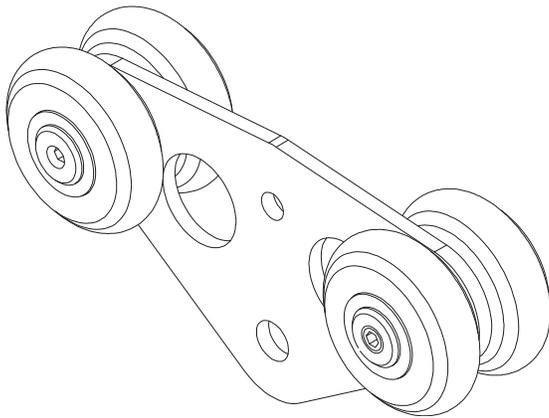
Table 1 - Trolleys

Four-Wheeled, Small-Eyed SRL Trolleys

Connection point for SRLs attached with an approved Double-Locking Carabiner. Small eye minimizes loss of overhead clearance, keeping the worker's attachment point as high as possible relative to their dorsal D-Ring. Model Numbers and dimensions are as follows:

Part	W	L
8521711	2.38" (60.45 mm)	6.50" (165.10 mm)
8522028 ¹	2.77" (70.36 mm)	6.50" (165.10 mm)

1 Wider wheel-based Trolley for use with "Super Extrusion" Rail Assemblies.



IMPORTANT: After the Trolleys has been fully installed, reinspect all components for damage, correct orientation, and proper torque on all nuts and bolts. Attach the intended fall arrest equipment (SRLs, Lanyards, etc.) to each Trolley and walk the Trolley the entire length of the Track Assembly to ensure the Trolley Wheels travel smoothly in the Track.

4.0 OPERATION AND USE

WARNING: Do not alter or intentionally misuse this equipment.

WARNING: Consult Capital Safety 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.

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.

- 4.1 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 6 for further inspection details. Do not use if inspection reveals an unsafe condition. If the system fails inspection, immediately remove from service and do not use. Contact Capital Safety for information about how to repair the Rail system.
- 4.2 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 and industry standards for guidelines and regulatory requirements on equipment such as personal fall arrest systems (PFAS).
 - B. WORK SITE GEOMETRY:** The use of the rail system and attached PFAS must be consistent with the geometric requirements stated in the manufacturer's instruction manual(s). 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. FALL CLEARANCE:** There must be sufficient clearance in your fall path to prevent striking an object or lower level in the event of a fall. A minimum of 6 ft. (1.8 m) from the working level to the lower level or nearest obstruction is recommended but may vary with you application and attached PFAS. See the PFAS manufacturers' instructions.
 - D. SWING FALLS:** Swing Falls occur when the anchorage point is not directly overhead (Figure 4). The force of striking an object in a Swing Fall may cause serious injury or death. Minimize Swing Falls by maintaining a work position as directly below the anchorage point as possible. In planning your system, increased clearance is required with Self-Retracting Lifelines or other variable length subsystems to negate the possibility of Swing Falls.
 - E. SHARP EDGES:** Avoid working where components of the rail system and attached subsystem(s) will contact with or abrade against unprotected sharp edges.
 - F. RESCUE:** When using this equipment, the employer must have a rescue plan and the means at hand to implement it and communicate that plan to users, authorized persons, and rescuers.
 - G. AFTER A FALL:** Any equipment which has been subjected to the forces of arresting a fall or exhibits damage consistent with the effect of fall arrest forces, must be removed from service immediately and destroyed by the user, the rescuer, or an authorized person.

4.3 COUNTERWEIGHT HORIZONTAL RAIL SYSTEM STYLES

NOTE: The Counterweight Horizontal Rail system comes in two different styles: Fixed-Height and Adjustable-Height. Read and understand the section that applies to your system.

4.3.1 FIXED-HEIGHT COUNTERWEIGHT HORIZONTAL RAIL SYSTEM

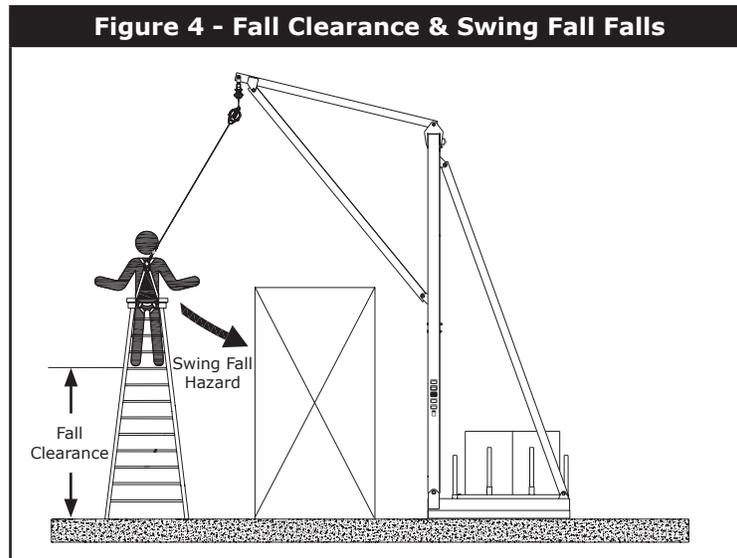
Fixed-Height Counterweight Horizontal Rail systems are not adjustable. The height of the rail system is dictated by the length of the rail system uprights.

IMPORTANT: Do not attempt to adjust the height of the rail system by setting items under the leveling feet to gain more height. The Fixed-Height rail system must only be used when all four (4) leveling feet are safely touching the ground.

4.3.2 ADJUSTABLE HEIGHT COUNTERWEIGHT HORIZONTAL RAIL SYSTEM

Adjustable Counterweight Horizontal Rail systems have an adjustable rail system upright. The height of the Rail Assemble can be changed by lifting or lowering the Rail Assembly.

IMPORTANT: Verify the Rail System Uprights are free of dirt and debris before adjusting the height.



4.4 REQUIREMENTS FOR PERSONAL FALL ARREST SYSTEMS (PFAS): PFAS used with the rail system must meet applicable OSHA requirements.

- 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 that incorporate full body harnesses must maintain fall arrest forces below 900 lbs. (4.0 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.
- If the system or any equipment has been subjected to the forces of arresting a fall, they must be removed from service immediately. The rail system should be inspected for any damage before it is put back into service.
- PFAS may only be attached to the Trolleys which move along the Rail Assembly (see Figure 1).

WARNING: Read and follow manufacturer's instructions for the personal fall arrest equipment selected for use with the Counterweight Horizontal Rail System.

IMPORTANT: Body belts are not allowed for free fall situations. Body belts 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.

4.5 USING THE COUNTERWEIGHT HORIZONTAL RAIL SYSTEM: General steps for using the rail system are as follows:

IMPORTANT: Altering, misusing, or using combinations of components or subsystems, or both, which may affect or interfere with the safe function of each other is prohibited.

- Step 1.** Position the Counterweight Horizontal Rail System over the desired work area/object. Place the unit into position so the Rail Assembly is centered in the work area to maximize the effective safe work area and reduce the potential for a fall. The Leveling Feet must be positioned over a stable, level surface capable of supporting the weight of the rail system.
- Step 2.** Secure and level the Counterweight Horizontal Rail System: Use the level supplied with the system to determine if the system is resting level on the work surface. If the work surface is uneven, level the system by using a wrench to raise or lower the Leveling Feet until the system is

resting level on the work surface. Do not use the rail system if the system is not level within 10 degrees in any direction.

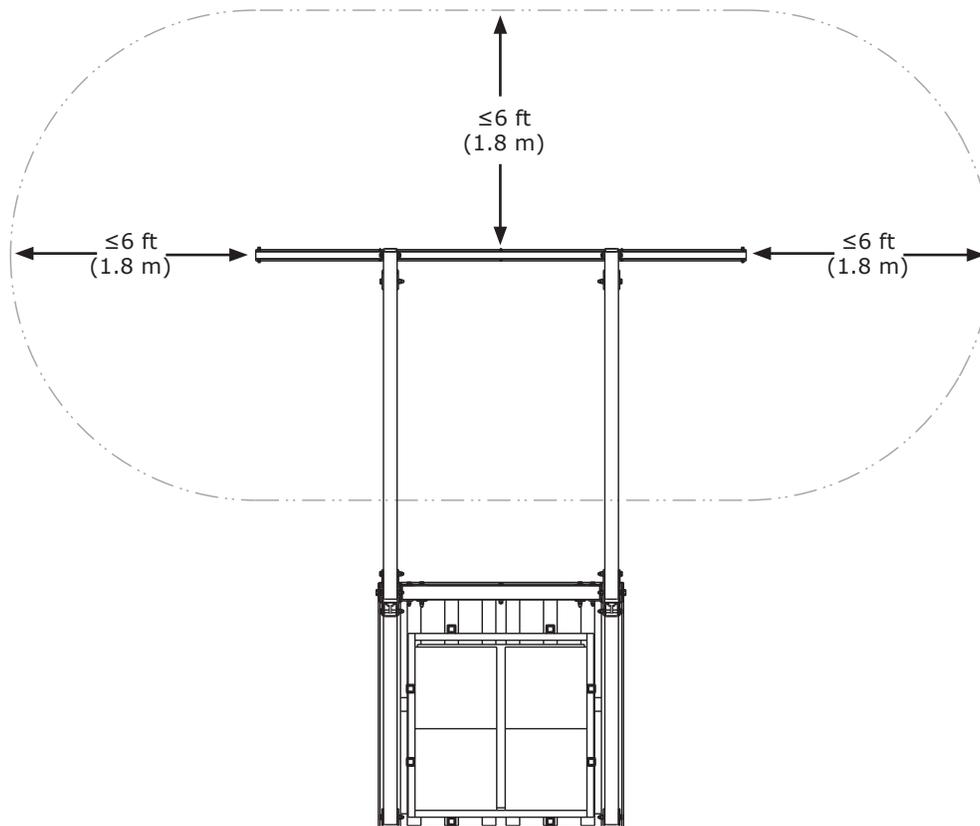
- Step 3. Don a Full Body Harness:** Don a Full Body Harness per the manufacturer's instructions.
- Step 4. Connect the SRL Lifeline to the Full Body Harness:** Connect the Self Locking Snap Hook or Self Locking/Self Closing Carabiner on the end of the SRL Lifeline to the Front or Back D-Ring on the Full Body Harness. To ensure a safe connection, always follow the instructions provided in the SRL and Full Body Harness manufacturers' instructions and observe the requirements in this manual regarding *Compatibility of Connectors* (Section 2.2) and *Connections* (Section 2.3).
- Step 5. When attached to the SRL:** The worker is free to move about within recommended working areas at normal speeds. The Trolley should roll freely in the Rail Assembly. The Lifeline should extend smoothly and retract without hesitation. If slack line condition is created in normal use, the unit should be inspected and serviced by an authorized service center. Should a fall occur, the SRL will lock and arrest the fall. Upon rescue, remove the SRL from use. Inspect as described in manufacturer's instructions. When working with the SRL, allow the lifeline to recoil back into the device under control. Allowing the lifeline to be fully extended for long periods of time may cause premature weakening of the retraction spring.

NOTE: A Tagline should be attached to the SRL's Lifeline Hook so the Lifeline can be pulled down to a proper position for connection to the Full Body Harness.

IMPORTANT: The maximum number of people that may be attached to the Counterweight Horizontal Frame System is stated by the system labelling; each using an individual Trolley and SRL. No more than one (1) person should be attached to a single Trolley at any time.

NOTE: The SRL line must not drag or bend over a leading edge while accessing the work area. To eliminate that problem reposition the unit. Follow the SRL manufacturer's instructions carefully.

Figure 5 - Positioning and Safe Work Area



5.0 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. Users 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.

6.0 INSPECTION

IMPORTANT: After the rail system has been fully installed, perform a complete inspection. Make sure all supplied labels are present and legible. Inspect for loose bolts, cracks, corrosion, or any other type of abnormality. Inspect the Glide Rail and its components to ensure the trolleys roll smoothly along the entire span of the system. Check all nuts and bolts for proper torque and orientation.

FREQUENCY: The Counterweight Rail Fall Arrest System shall be inspected by the user before each use, and additionally, by a Competent Person³ other than the user at intervals of no more than one year⁴. Inspection procedures are described in the following 'Inspection Steps'. Results of each Competent Person inspection should be recorded on the "Inspection and Maintenance Log" at the back this instruction manual.

INSPECTION STEPS:

- Step 1.** Inspect the frame system for physical damage. Look carefully for any signs of cracks, dents, or deformities in the metal. Make certain the components are not deformed in any way and that they move correctly.
- Step 2.** Inspect the frame system for signs of excessive corrosion.
- Step 3.** Ensure the condition of the mounting surface will support system loads.
- Step 4.** Inspect each system component or subsystem (e.g. self-retracting lifeline, full body harness, etc.) per associated manufacturer's instructions.
- Step 5.** Verify there are no loose nuts and bolts on the system. Tighten all loose bolts to the proper torque specifications.

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

IMPORTANT: If the rail system as been subjected to the forces of arresting a fall, remove the system from the field of service. After the system has been removed from service, inspect the system to verify it is in proper working order before using the system.

7.0 MAINTENANCE - SERVICING - STORAGE

7.1 CLEANING: Clean the rail system 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 frame system or have any doubt about putting it into service, contact Capital Safety.

NOTE: Additional maintenance and servicing procedures (i.e. replacement parts) must be completed by a factory authorized service center. Authorization must be in writing.

7.2 STORAGE: The rail system is designed to be stored outdoors during normal weather conditions. If the weather environment is severe, it is recommended to store the rail system in an area that prevents damage to the system.

7.3 LEVELING FEET: The threaded portion of the leveling feet should be regularly lubricated with grease or light oil to ensure they can be turned freely.

3 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.

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

8.0 LABELS

The following labels must be present and legible on the rail system:



WARNING

This product is approved for use with retractable devices and shock absorbers with a MAXIMUM ARRESTING FORCE (M.A.F.) RATING OF 900 lb (4 kN) OR LESS. Retractable devices and shock absorbers must be installed, maintained and used according to the manufacturer's instructions.

Pt# 13818



WARNING

YOU MUST READ AND UNDERSTAND THE OPERATOR'S MANUAL OR HAVE INSTRUCTIONS EXPLAINED TO YOU BEFORE USING THIS PRODUCT.

Not following the instructions in the operator's manual can cause serious injury or death.

Pt#15570



WARNING

TIPPING HAZARD: USE SYSTEM ONLY WHEN ALL PROVIDED COUNTERWEIGHT IS ATTACHED, TO PREVENT TIPPING HAZARD. FAILURE TO DO SO MAY CAUSE INJURY OR DEATH.

Pt# 9505174



WARNING

This mast is to maintain a vertical position at all times it is being used as a fall-arrest anchor point.

Pt# 16994



DANGER



ELECTROCUTION HAZARD

WATCH FOR OVERHEAD POWER LINES

Pt#: 16399



WARNING

This man-rated system is designed for a maximum

1 2 3 4

person(s) user capacity in accordance with manufacturer's instructions.

Pt# 20099

9504547 Rev. H



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SERIAL NO.: XXXXXX
Numéro de série: XXXXXX

MFRD(Y/M): Fabriqué(e) (a/m)	LOT NO.: Numéro de lot:	MODEL NO.: Numéro du modèle:	LENGTH (FT): Longueur(m):
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This instruction applies to the following models:

8517761	8530316
8517762	8530339
8517763	8530386
8530124	8530400
8530141	8530406
8530166	8530423
8530193	8530539
8530234	8530630
8530247	8544628
8530265	8560012
8530289	

Additional model numbers may appear on the next printing of these instructions.

LIMITED LIFETIME WARRANTY

Warranty to End User: D B Industries, LLC d/b/a 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.



The Ultimate in Fall Protection

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