SAFETY POLE SYSTEM

INSTALLATION GUIDE

SP- INS - 2501-A

SAFETY POLE SYSTEM



INSTRUCTION GUIDE

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Installation • Use • Maintenance • Inspection

This guide provides official manufacturer-issued documentation for the **Safety Pole™ Fall Arrest Anchor System**. It contains detailed instructions, safety advisories, technical specifications, and compliance information for jobsite supervisors, installers, safety personnel, and field technicians.

The Safety Pole system is designed for temporary or semi-permanent use on flat concrete or steel roof surfaces as a vertical fall arrest anchor in accordance with OSHA requirements and ANSI Z359 standards. Proper installation, inspection, and use of this system are essential to maintaining worker safety.

This manual is supplied as a working reference guide for jobsite and training environments. It is intended for inclusion in field safety binders or jobsite documentation packets. Printed copies should be maintained in an up-to-date, legible condition and replaced when damaged or superseded by newer editions.

⚠ **IMPORTANT**
This document must be reviewed prior to use of the Safety Pole system.
Only qualified individuals should perform installations.
All personnel using the Safety Pole system must be trained in fall protection safety and proper equipment use.

For the most current product documentation, safety alerts, or downloadable inspection forms, please visit:
www.safetypole.com

About This Supplement
The Installation Instruction Guide is intended as a supplemental guide to assist in the safe and effective use, assembly, and installation of the Safety Pole system. The information presented herein has been compiled from official manufacturer sources, including the Safety Pole Owner's Manual, product documentation, and technical references available through the Safety Pole website and authorized channels.

This publication is *not a replacement* for any manufacturer-provided manuals or documentation. Users are strongly advised to review and retain all original Safety Pole materials that accompany the product at time of delivery. These materials may contain additional guidance, specifications, and safety advisories not duplicated in this supplement.

For complete, current, and authoritative instructions or compliance references, always consult the full manufacturer documentation. If any information in this guide appears to conflict with primary documentation or site-specific requirements, defer to the official Safety Pole resources or contact Safety Pole directly for clarification.

⚠ **WARNING**
This product is part of a fall protection system. The users must read and follow the manufacturer's instructions for each component of the system. These instructions must be provided to the users of this equipment. The users must read and understand these instructions or have them explained to them prior to using the 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.

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THE SAFETY POLE SYSTEM



Photo: Installing a Safety Pole System using forklift and boom attachment

Welcome to the official Safety Pole System Manual, a complete guide for the proper use, assembly, and configuration of one of the most advanced modular fall protection solutions available to today's building professionals. Designed specifically for residential and commercial framing environments, the Safety Pole System offers versatile, OSHA-compliant protection whether deployed as a single anchor point or a full horizontal lifeline (HLL) system.

From its earliest concept, the system has been engineered with real-world jobsite demands in mind—supporting multiple trades, adapting to evolving site elevations, and providing continuous fall protection as construction progresses vertically. Each Safety Pole package arrives as a preconfigured kit, including all major components: steel bases, stackable ten- and five-foot pole sections, tee-sections, tie-back cables, anchor shoes, and double-pulley cable pullers. With a standard height configuration reaching 18', and a maximum stackable height of 27 feet per single pole assembly, the system meets the framing needs of most single- and multi-story structures with ease.

The modularity of the Safety Pole System allows it to scale not only in height, but in function. The same poles used for vertical fall arrest anchorage can be adapted to support horizontal lifeline spans of up to 60 feet. Each span supports two workers per line (or up to four total when tied off at both ends), ensuring flexibility without compromising safety. Where additional access is needed—such as for third-story framing or multi-level roof installation—the "leapfrog" method permits the system to move upward, floor by floor, with each cycle of framing and sheathing. Optional adapter plates, including the Raised Floor Plate, allow the base to be anchored to subfloor joists as the system ascends the structure.

Every major component has been built to withstand jobsite wear and meet rigorous structural load requirements. Galvanized steel cables and D-rings, stainless steel energy absorbers, and heavy-gauge steel poles ensure that the system maintains performance across demanding field conditions. Moreover, each component's weight has been

carefully calculated for safe handling and efficient transport; for example, two-pole system configurations weigh in at just over 1,040 pounds fully equipped.

This manual provides detailed guidance on system assembly, configuration, inspection, and disassembly, along with clearly defined safety protocols. QR codes are provided on all poles and components for fast on-site access to training videos in both English and Spanish. These video resources cover installation techniques and system behavior in real-world use cases not fully illustrated in this manual, and they are highly recommended for all framing crews.

Initial training is provided by Safety Pole Inc. for teams that require certification in system installation and use. Additional customization options, including powder-coating to match company branding and decal placement, are available upon request.

Whether you are a framer, project manager, or site superintendent, this system is designed to integrate seamlessly with the phases of your build—protecting your team while keeping your site compliant and operational. The following sections will walk you through every aspect of installation and use, ensuring that you have the tools and knowledge necessary to deploy the Safety Pole System confidently, safely, and effectively.

Digital Access & Video Instruction Library

This manual has been developed to guide you through the safe and proper use of the Safety Pole System, a modular fall protection solution trusted by industry professionals nationwide. Whether you're installing a single anchor point or a horizontal lifeline across multiple spans, your system has been engineered to meet OSHA standards and support the demanding workflows of modern construction sites.

To support safe usage and confident installation, we've provided a complete digital training experience. The QR codes on this page give you instant access to Safety Pole's online resources.

THESE TOOLS INCLUDE

☑ The Official Safety Pole Website — for detailed product information, technical specifications, downloadable documents, and customer service contact.

☑ The Safety Pole YouTube Channel — featuring a growing library of professional videos on installation, configuration, storage solutions, and industry best practices.

☑ Full Installation Video (English) — a step-by-step walkthrough of the Safety Pole system setup, including base, section, T-component, and lifeline installation.

☑ Full Installation Video (Spanish) — a Spanish-language version of the instructional video to ensure clarity and compliance across multilingual crews.

These resources are accessible on any smartphone or tablet. Simply scan the QR code corresponding to your need, and you'll be directed to the most current instructional content available. We recommend sharing these videos with all crew members during safety meetings or installation training.

Safety Pole Homepage



Safety Pole on YouTube



Installation (English)



Installation (Spanish)



SECTION 1: INTRODUCTION & SAFETY OVERVIEW

1.1 Purpose of the Safety Pole System

The Safety Pole is a portable, modular fall arrest system engineered to provide a secure tie-off point for construction workers operating in environments where permanent fall protection is unavailable. Designed to meet OSHA fall protection requirements, the Safety Pole enables vertical and horizontal fall restraint through either a single-user anchor configuration or a multi-user horizontal lifeline (HLL) system.

Its portable design allows for rapid setup and repositioning between work areas, while its componentized structure accommodates a range of jobsite layouts, including open deck, raised floor, and slab applications. The system supports compliance with OSHA 1926.502(d) and ANSI Z359 fall protection criteria when installed and used as directed.

1.2 System Applications and Configurations

The Safety Pole can be deployed in multiple configurations to suit diverse worksite conditions:

Single Anchor Configuration: Provides a secure overhead tie-off point for a single worker using a self-retracting lifeline (SRL) or shock-absorbing lanyard.

Horizontal Lifeline (HLL) Configuration: Accommodates up to four users connected to a tensioned cable suspended between two pole systems. This setup is ideal for larger work surfaces or extended walking paths.

Leapfrog Setup: Enables safe movement across successive levels by temporarily relocating poles from completed areas to those pending access.

Each setup option can be mounted to a variety of surfaces using dedicated base plates, including:

- Concrete slabs via expansion anchor bolts
- Wooden subfloors or raised decks via lag screws
- Integrated or proprietary raised floor plates for multi-story applications

Poles can be stacked using collar-mounted extensions to reach greater working heights and maintain required overhead tie-off clearance.

1.3 OSHA Compliance & Safety Standards

The Safety Pole is engineered to exceed OSHA fall protection requirements as outlined in 29 CFR 1926.502(d). When installed per manufacturer guidelines, it provides an approved anchor point for personal fall arrest systems (PFAS) rated at or above 5,000 lb static load. Horizontal lifeline setups incorporate turnbuckles and tie-back cables to maintain correct tension, span, and load distribution across multiple users.

The system also conforms to ANSI/ASSE Z359 standards for fall protection anchorage and structural support systems. Each Safety Pole assembly includes QR-code access to instructional resources, inspection forms, and OSHA guideline references.

1.4 Warnings, Labels, and Critical Notices

⚠ **WARNING**
Do not use the Safety Pole unless all components are present, undamaged, and installed per this manual.

⚠ **CAUTION**
All system setups must include a secondary tie-back cable angled at 45° or less from the base of the pole to a fixed structural anchor point.

i **NOTE**
Never exceed the maximum user load or cable span for HLL configurations. Refer to system label for specific limits.

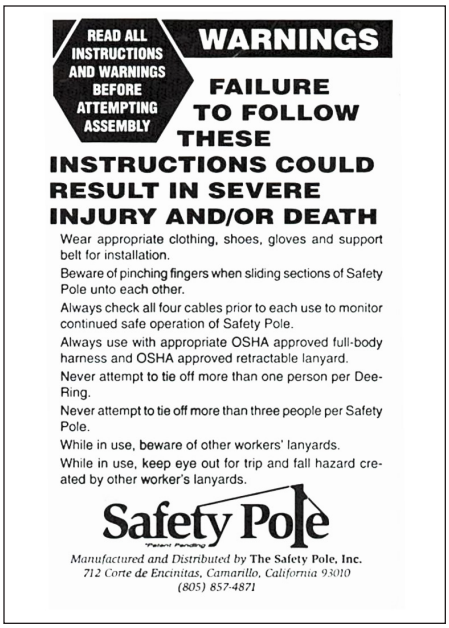
☑ **INSPECTION REQUIRED**
Before each use, inspect the entire system—including pole joints, base fasteners, D-ring assemblies, and all SRL or HLL connections—for signs of wear, deformation, or damage.

Each Safety Pole includes affixed product ID labels, serial number tracking, and a checklist for pre-use inspection. Field crews should verify label legibility and affix replacement labels if damaged or missing.

For complete inspection guidance, refer to Section 4: Inspection Requirements and Appendix B: Printable Pre-Use Inspection Form.



Mandatory labels. Manufacturer's authenticity label (top) and the safety warning label (bottom) are required on all Safety Pole installations to ensure compliance and user safety.



These labels must be present and fully legible.

1.5 IMPORTANT LIMITATIONS

The following limitations apply to the installation and use of this equipment. Other limitations may apply

QUALIFIED SUPERVISION REQUIRED
OSHA regulations mandate that all horizontal lifeline (HLL) systems must be installed and used under the supervision of a qualified person. This individual must possess a recognized degree or professional certificate and demonstrate extensive knowledge, training, and experience relevant to the work. Their competency must extend to design, analysis, evaluation, and specification of fall protection systems and components.

The Safety Pole HLL system is to be utilized only as part of a complete personal fall arrest system that maintains a minimum safety factor of 2:1. Users and installers must reference OSHA standards 1910.66, 1926.32, and 1926.502 for full compliance and clarification of responsibilities.

HORIZONTAL LIFELINE LOADS
To protect the integrity of the system and its end anchors, the horizontal lifeline (HLL) must be engineered to withstand no more than 5,000 lbs. along the line's axis and 3,600 lbs. in any direction perpendicular to that axis during a fall arrest event. The HLL must always be located above the user's D-ring to reduce fall angles and prevent excess loading on the anchor poles.

HLL SPAN LENGTH
The maximum allowable span between end anchors for a single HLL is 60 feet. Longer systems must use multiple spans, with reduced span lengths applied in conditions of limited fall clearance. Refer to Section 3.0 and Figure 4 for clearance and layout guidance.

ANCHORAGE REQUIREMENTS
The Safety Pole System must only be installed on anchorages that meet specific strength and dimensional criteria as detailed in Figure 3. Anchor bases must be secure and verified for appropriate load-bearing performance prior to use.

(CONT. ON NEXT PAGE)

i OSHA Citations

This guide references actual OSHA language. While Safety Pole adheres to best practices, this document does not interpret or paraphrase federal standards. For compliance planning, consult : *www.osha.gov.*

USER CAPACITY LIMITS

Single Safety Pole System

- **Capacity:** Up to 3 users
- **Height Options:** *MUF:* 18 feet (1 ten-foot + 1 five-foot section). *Traditional:* 27 feet (2 ten-foot + 1 five-foot section)

Horizontal Lifeline (HLL) System

- **Capacity:** 2 users per HLL span
- **Maximum Span:** 60 feet
- **Multiple Spans:** Up to 6 users total across system
- **Max. user weight:** 310 lbs including tools and PPE

CONNECTING SUBSYSTEM USE

Only use approved connecting subsystems per manufacturer instruction. The system is designed for use with self-retracting lifelines (SRLs) to minimize freefall distances and allow user mobility. Each user's equipment must restrict fall arrest force to ≤900 lbs. See Section 2.4.

FREE FALL PRECAUTION

The system must be installed and used such that free fall distance never exceeds manufacturer or OSHA regulatory limits. Review Section 3.0 and corresponding subsystem documentation for rigging requirements.

SWING FALL HAZARD

Swing falls pose serious risk. Avoid working laterally from anchorage points. Position anchor points directly overhead when possible. When working near two-story openings, use the interior catch cable system to reduce swing fall exposure. See Figure 5.

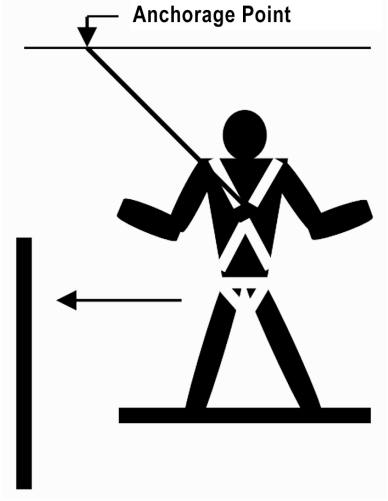


Fig. 5: Swing Fall Hazard

FALL CLEARANCE REQUIREMENT

Ensure sufficient vertical clearance is maintained beneath the working surface to safely arrest a fall. Reference Section 3.0 for clearance charts and calculations.

REQUIRED BODY SUPPORT

Use of this system mandates a full-body harness with an approved SRL. No substitutions are permitted. All equipment must be part of a certified personal fall arrest system.

ENVIRONMENTAL HAZARD ALERT

Additional precautions are required when operating in environments with physical or chemical hazards. These may include: high heat, corrosive materials, electricity, moving machinery, gases, or sharp edges. Contact Safety Pole Inc. for guidance prior to use in such conditions.

MANDATORY TRAINING

All users and installers must receive formal training in the proper setup, use, and disassembly of the Safety Pole System. This manual supports—but does not replace—a complete training program. See Section 4.0 for details.

GOVERNING STANDARDS

Compliance with all applicable standards is required. These include:

- OSHA 1910.66 & 1926.502
- ANSI Z359.1
- ANSI A10.14

RELEVANT STATE AND LOCAL FALL PROTECTION CODES.

Stay current with updates from regulatory agencies and consult certified safety personnel when needed.

⚠ OSHA regulations require that horizontal lifelines shall be installed and used under the supervision of a qualified person (see below for definition) as part of a complete personal fall arrest system that maintains a safety factor of at least two.

i Qualified Person: An individual with a recognized degree or professional certificate, and extensive knowledge and experience in the subject field, who is capable of design, analysis, evaluation and specification in the subject work, project or product. Refer to OSHA 1910.66, 1926.32 and 1926.502.

i CONNECTING SUBSYSTEM: The connecting subsystem (cable self retracting lifeline) is the portion of the personal fall arrest system that is used to connect between the full body harness and the horizontal lifeline rollers. The connecting subsystem must limit forces applied to the horizontal lifeline to 900 lbs or less.

i 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 structure elements such as rebar or cross members that are not shaped in a way that can capture the gate of the hook.

i STRUCTURAL LOAD: Structural anchorage points must be rigid, and capable of supporting at least 5,000 lbs. along the axis of the horizontal lifeline. Anchorages must also support at least 3,600 lbs. applied in all directions of fall arrest that are perpendicular to the axis of the horizontal lifeline. See figure 8.

⚠ WARNING: Do not alter or intentionally misuse this equipment. Consult Safety Pole Inc., 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: Consult your doctor if there is reason to doubt your fitness to safely absorb the shock from a fall arrest. Age and fitness seriously affect a worker's ability to withstand falls. Pregnant women and minors must not use this system.

SECTION 2: SYSTEM COMPONENTS & SPECIFICATIONS

2.1 Complete System Inventory

Each Safety Pole system includes a standardized set of structural and safety components, suitable for both single-user anchorage and horizontal lifeline (HLL) configurations. Safety Pole systems are available in two standard configurations with specific component quantities:

MOVING UP EACH FLOOR (MUF) SYSTEM - 2 POLES × 18 FT

Each System Comes with:

- (2) Bases - Part # AA13374
- (2) 10′ Sections - Part # AA13375
- (2) 5′ Sections - Part # AA13376
- (2) T-Sections - Part # AA13377
- (6) Tie-Back Cables - Part # AA13382
- (6) Come-Alongs - Part # AA13383
- (6) 2×6 Shoes - Part # AA13379
- (2) Horizontal Lifelines - Part # AA13381

TRADITIONAL SAFETY POLE SYSTEM - 2 POLES × 27 FT

Each System Comes with:

- (2) Bases - Part # AA13374
- (4) 10′ Sections - Part # AA13375
- (2) 5′ Sections - Part # AA13376
- (2) T-Sections - Part # AA13377
- (6) Tie-Back Cables - Part # AA13382
- (6) Come-Alongs - Part # AA13383
- (6) 2×6 Shoes - Part # AA13379
- (2) Horizontal Lifelines - Part # AA13381

MATERIALS SPECIFICATION

The Safety Pole System is fabricated from industrial-grade components tailored for residential and commercial framing environments. Each system configuration uses a combination of structural steel, tensioning equipment, and certified safety hardware to ensure compliant, load-bearing performance across diverse jobsite conditions.

A. Residential System Components

The residential variant of the Safety Pole System is constructed around a primary structural member— a 5 by 5 inch steel pole with ¼-inch wall thickness. Stabilization is achieved through the use of ten-foot tensioning cables rated for a 1,400 lb. working load, formed from ¼-inch steel wire. Tensioning is provided by 8,000 lb. rated double-pulley winch pullers, each loaded with ¼-inch steel cable. The system anchors using base plate shoes fabricated from 3/16-inch thick steel.

B. Commercial System Components

For commercial application, the primary safety pole is constructed from the same 5 by 5 inch profile, but with increased wall thickness of 5/16-inch steel to withstand greater structural demands. Tensioning cables are rated to a 2,200 lb. working load and possess an 11,000 lb. breaking strength. All other cable tensioning hardware mirrors that of the residential model, with 8,000 lb. rated winch pullers using ¼-inch steel cable. Base plates remain standardized at 3/16-inch steel.

C. Horizontal Lifeline (HLL) Assembly

The core lifeline is comprised of 3/8-inch diameter, 7 x 19 galvanized steel wire rope. All associated hardware is specified for durability and strength, including zinc-plated steel bolts (Grade 5 or Grade 8) and nuts, galvanized steel shackles and thimbles, and 5,000 lb. minimum tensile strength components. Galvanized

turnbuckles and cable grips are used to maintain secure load distribution. Lifeline connections rely on 5,000 lb. rated, double-locking carabiners. The energy absorption mechanism is manufactured from stainless steel and designed for progressive deployment under load.

D. Catch Cable Components
The Catch Cable system parallels the lifeline specification, constructed with 3/8-inch diameter, 7 x 19 galvanized steel wire rope for all load-bearing functions. Anchor shoes are made from 3/16-inch steel. Hardware components—including bolts, nuts, shackles, thimbles, and turnbuckles—are all fabricated from zinc-plated or galvanized steel with rated tensile strengths of at least 5,000 lbs. The cable grip and locking carabiners maintain identical specifications to those used in the lifeline assembly.

2.2 Component Breakdown & Function

Component	Description & Use
Vertical Pole Section	**Residential System**: 5" × 5" × 5/16" wall steel; **Commercial System**: 5" × 5" × 5/16" wall steel
T-Section Head	Dual D-ring bracket allowing perpendicular or parallel anchor connections. Used in both anchor and HLL systems.
Concrete Base Plate	Steel platform anchored with expansion bolts for slab installation.
Raised Floor Plate	Engineered plate with lag holes for use on subfloor or decking.
Tie-Back Cable	Required angled support cable that stabilizes the vertical post against fall force.
Turnbuckle Assembly	Tension-adjustable hardware to secure tie-back cables and HLL spans.
D-Ring Assembly	Connection point for personal fall arrest systems (PFAS), SRLs, or lifelines.

NOTE
All components are zinc-coated or anodized for corrosion resistance, and tested to meet or exceed OSHA 1926.502 and ANSI Z359 strength requirements.

2.3 Modular Height Configurations

Safety Pole segments may be stacked using collar-mounted couplers. Standard use involves a single 10-ft pole, but additional heights can be achieved for clearance over wall panels, trusses, or parapets. Key constraints based on Price List specifications:

- MUF System: Maximum 18 ft (1 × 10′ Section + 1 × 5′ Section + T-Section)
- Traditional System: Maximum 27 ft (2 × 10′ Sections + 1 × 5′ Section + T-Section)
- A tie-back cable is required at every 10 ft segment added
- Tie-back configuration must be verified for each additional 10-foot segment added

Height adjustments should be based on SRL manufacturer recommendations for overhead clearance, fall distance, and allowable arrest force.

2.4 Single Anchor vs. Horizontal Lifeline Setup

The Safety Pole accommodates two primary fall protection scenarios:

SINGLE ANCHOR SETUP

- One user per pole
- SRL or lanyard attaches directly to D-ring at T-section
- Requires 45° tie-back and certified base connection
- Ideal for isolated or sequential work areas

HORIZONTAL LIFELINE (HLL) SETUP

- Two poles connected via 3/8” steel cable
- Supports up to four users, each tied off independently

This Setup Requires

- Tensioned cable using turnbuckles and pulleys
- Tie-backs at both poles
- Intermediate stanchion (optional) for long spans or open decks

Span limits and loading must conform to the HLL manufacturer specs. Refer to Section 7 for full installation procedure.

2.5 Optional Equipment and Accessories

The following accessories may be added to expand system function or simplify deployment:

- Intermediate Pole Stanchions – Used in long HLL spans to prevent sag and reduce force loads.
- Portable Weighted Bases – Optional ballast base with integrated cable tie-offs for slab work without drilling.
- QR-code links to training resources may be included on system labels.
- Optional accessories vary by configuration.
- Custom-Height Pole Sections – Available in 2’, 4’, or 6’ extensions.

i **IMPORTANT REMINDER**
If you have questions on the use, care, or suitability of this equipment for your application, contact Safety Pole Inc.

OPERATION OF THE PFA & HLL SYSTEM

Proper operation of the Safety Pole Horizontal Lifeline (HLL) System begins with the correct preparation and use of each Personal Fall Arrest System (PFAS) component. Before entering any elevated work zone, the user must inspect and wear a full-body harness in accordance with the harness manufacturer’s instructions. The harness must be connected securely to an appropriate connecting subsystem, such as a self-retracting lifeline (SRL) or shock-absorbing lanyard, using the designated D-ring attachment point on the harness.

Access to elevated areas must be achieved only with suitable equipment. Once in position, the user must connect their fall arrest system to one of the designated attachment rollers on the HLL. All connectors used in this step must be compatible with the system and meet applicable strength and performance standards. Users must not expose themselves to unnecessary risk. This includes behaviors such as overreaching, jumping, or positioning oneself too far from the edge of the working surface. The connecting subsystem must never pass beneath the arms or between the feet. For safety and clearance, workers should remain below the horizontal lifeline and avoid climbing above it. Lateral travel too far to either side of the HLL must also be avoided to reduce the risk of a swing fall, which can occur if the user falls from a lateral position relative to the HLL anchor point.

The system permits two users to be connected to a single HLL; however, users must understand that if one person falls, the horizontal line will deflect under the load. This deflection can increase the likelihood of a second person being pulled from the surface. The longer the HLL span, the greater this risk becomes. To minimize this hazard, Safety Pole recommends either assigning independent HLL systems to each worker or using shorter spans to limit deflection.

Free fall distances must be minimized. The fall arrest system must be configured so that the SRL or shock-absorbing lanyard is positioned overhead and maintains as little slack as possible. This configuration must comply with current OSHA guidelines for fall clearance and system rigging.

System components must never be allowed to rest against, drag across, or abrade unprotected sharp edges. When conditions cannot be avoided, protective coverings must be used to shield the system and prevent damage to harnesses, lifelines, or connectors.

In the event of a fall, the site’s designated rescue plan must be activated immediately. A suspended worker’s time in a harness is limited by both physiological constraints and safety concerns—prompt rescue is essential. For this reason, Safety Pole strongly recommends the presence of a trained on-site rescue team. This team should be equipped with appropriate rescue tools and receive ongoing training to maintain operational readiness. Regular practice ensures that rescue operations are performed safely, effectively, and without unnecessary delay.

SECTION 3: TOOLS & PRE-INSTALLATION REQUIREMENTS

3.1 Required Tools

The following hand and power tools are necessary for proper assembly and installation of the Safety Pole system. Only qualified personnel should operate power tools per jobsite safety regulations.

Tool	Application
Tape Measure	To confirm placement, clearance, and tie-back geometry
Impact Drill / Hammer Drill	For anchoring base plate to concrete surfaces
Torque Wrench	For securing bolts to specified torque settings
Socket Set (Standard and Metric)	For pole assembly and turnbuckle adjustment
Level (Bubble or Laser)	To verify vertical plumb of pole sections
Permanent Marker or Chalk Line	For marking install points and tie-back angle path
Wrench Set	For fastening nuts and hardware

NOTE
If using the portable weighted base configuration, drill-based anchors may not be required.

3.2 Pre-Installation Surface Requirements

Prior to installation, confirm that the mounting surface meets the structural criteria required for anchoring the Safety Pole base plate.

CONCRETE SLAB MOUNTING
- Minimum thickness: 6 inches
- Surface must be level, dry, and free of debris
- No unreinforced edges or spalls within 3 feet of mounting location

RAISED FLOOR INSTALLATION
- Subfloor framing must support minimum system load requirements (per project engineer)
- Mounting must occur directly over joist or beam structure
- Plywood or underlayment alone is not acceptable

WARNING
Do not install on surfaces with visible cracking, delamination, or insufficient anchoring substrate.

3.3 Clearance & Overhead Requirements

Ensure adequate clearance for both the vertical pole and the user’s fall arrest system.

- Minimum vertical clearance: 14 ft (for SRL deployment and user movement)
- Ensure tie-back path is unobstructed by conduit, HVAC, or wall systems
- D-ring connection points must remain visible and accessible at all times

Check work zone for any interference that may prevent proper anchoring, movement, or swing radius during use.

3.4 Site Access & Setup Environment

Installation must not begin until the following jobsite conditions are met:

- ☐ Area beneath install site is clear of unauthorized personnel
- ☐ All tools and hardware are staged and verified
- ☐ Safety signage is posted if installation occurs near occupied work zones
- ☐ Ladder, lift, or platform (if required) is positioned and stabilized
- ☐ Tie-back anchor location is identified, accessible, and verified per engineering layout

i **NOTE**
The Safety Pole system should not be installed during high winds, rain, or unstable site conditions.

3.5 System Requirements

Compatibility of Components
All components used in the Safety Pole System must be manufactured or explicitly approved by Safety Pole Inc. The complete fall protection system is designed to operate as an integrated assembly, and substitution of parts or use of non-approved subsystems may compromise overall safety. Compatibility is a fundamental requirement of system integrity, and any deviation from approved specifications introduces the risk of functional failure.

Compatibility of Connectors
Connectors—such as carabiners, snap hooks, and anchorage rings—must be selected and installed in a way that ensures full compatibility with the connecting elements. A connector is only deemed compatible when it cannot unintentionally disengage, even under rotation or misalignment during use.

Improper sizing, irregular anchor shapes, or incorrect mating components can result in force being inadvertently applied to the gate of a snap hook or carabiner. In such cases, even a self-locking mechanism may fail, allowing the connector to open under load and disconnect. All anchorage connectors must be capable of withstanding a minimum load of 5,000 lbs (22 kN), and must be sized and shaped to fully and securely engage the connecting element.

Use only self-locking snap hooks or self-locking carabiners, as required by ANSI Z359.1 and OSHA. Non-compatible connectors may roll out, disengage, or create failure conditions under movement or load.

Making Connections
All connections within the system must be made using connectors that are both self-locking and appropriate to the specific application. Each connector must be inspected for correct closure and locked status prior to use. Connections should never result in force being applied to the gate mechanism of a hook or carabiner.

MATERIALS SPECIFICATION

Structural Integrity Starts with the Right Components

The Safety Pole System is engineered to meet rigorous performance and compliance standards across both residential and commercial framing environments. Each material component is selected for its strength, durability, and compatibility within a modular fall protection setup. Specifications vary slightly between residential and commercial systems to account for differing load requirements, pole heights, and framing conditions.

All hardware meets or exceeds OSHA and ANSI requirements, with minimum tensile and working load thresholds clearly defined. Do not substitute materials unless approved by the manufacturer.

Residential System
- Safety Pole: 5” × 5” × ¼” wall steel
- Tensioning Cables: 10’ length, 1,400 lb working load, ¼” steel cable
- Cable Ratchets: 8,000 lb double-pulley winch puller with ¼” steel cable
- Base Plate Shoes: 3/16” steel

Commercial System
- Safety Pole: 5” × 5” × 5/16” wall steel
- Tensioning Cables: 10’ length, 2,200 lb working load, 11,000 lb breaking strength, ¼” steel cable
- Cable Ratchets: 8,000 lb double-pulley winch puller with ¼” steel cable
- Base Plate Shoes: 3/16” steel

Horizontal Lifeline (HLL)
- Wire Rope: 3/8” dia., 7 × 19 galvanized steel
- Bolts: Grade 5 or 8 zinc-plated steel
- Nuts: Zinc-plated steel
- Shackles: Galvanized steel, 5,000 lb minimum tensile
- Thimbles: Galvanized steel
- Turnbuckles: Galvanized steel, 5,000 lb minimum tensile
- Cable Grip: Galvanized steel
- Carabiners: Double-locking, 5,000 lb rated
- Energy Absorber: Stainless steel

Catch Cable Assembly
- Wire Rope: 3/8” dia., 7 × 19 galvanized steel
- Base Plate Shoes: 3/16” steel
- Bolts & Nuts: Grade 5 or 8 zinc-plated steel
- Shackles & Thimbles: Galvanized steel, 5,000 lb minimum tensile
- Turnbuckles: Galvanized steel, 5,000 lb minimum tensile
- Cable Grip: Galvanized steel
- Carabiners: Double-locking, 5,000 lb rated

THE FOLLOWING CONNECTION METHODS ARE EXPRESSLY PROHIBITED

- ⛔ Connecting to a D-ring that is already occupied by another connector.
- ⛔ Any connection that would subject the gate to load force.
- ⛔ Use of large-throat hooks with standard D-rings, where twisting could apply gate force.
- ⛔ False engagements, where a partial hook or carabiner attachment appears locked but is not securely fastened.
- ⛔ Connecting two snap hooks or carabiners directly to one another.
- ⛔ Direct connection of hooks to webbing, rope lanyards, or tie-back assemblies unless such connection is approved by both product manufacturers.
- ⛔ Attachment to any structure or object that prevents full gate closure or may cause the connector to open due to rolling or shifting.

Connection integrity must be visually verified and meet the mechanical load requirements of both the Safety Pole System and the selected personal fall arrest subsystem.

Connecting Subsystem
The connecting subsystem refers to the portion of the fall protection system that joins the user's full-body harness to the mobile anchor point on the horizontal lifeline. In this system, a self-retracting lifeline (SRL) equipped with a cable extension is the required connection method. The connecting subsystem must limit the dynamic load on the HLL to no more than 900 lbs during arrest. Failure to use an appropriate SRL introduces unacceptable fall arrest force levels and compromises the functionality of the system.

Structural Load Requirements
All anchorage points used for Safety Pole installation must meet structural strength standards suitable for fall arrest anchoring. The structure to which the poles are mounted must:

- Withstand a minimum 5,000 lbs. of force along the horizontal axis of the HLL.
- Withstand at least 3,600 lbs. of force in any direction perpendicular to the axis, to accommodate dynamic force vectors during a fall event.

These requirements must be met for each anchor location independently. Refer to Figure 8 for recommended placement and anchorage method examples.

⚠ **WARNING**
Whenever the safety pole is raised to the next level the tensioning cables must also be re-attached to the D-Rings just below the top 5 foot section of the Safety Pole. The side tensioning cables must never exceed a 45 degree angle above the floor.

HEIGHT VERIFICATION
Confirm height of Safety Pole before securing anchors to ensure proper clearance.

FALL HAZARD ZONES
Ensure platform edges or drop-offs are clearly marked during pole setup.

SECTION 4: INSPECTION & MAINTENANCE PROCEDURES

Inspection of the Safety Pole System

Ensuring the Safety Pole System performs to its intended safety standard requires consistent, thorough inspection. Regular inspections are essential to verify that every part of the system is in good condition and functioning as designed. Inspections should never be treated as optional or routine—they are a vital part of maintaining a safe work environment.

Three distinct points at which the Safety Pole System must be inspected:

1. PRIOR TO INSTALLATION
Before setup begins, all system components must be examined to confirm that none are damaged or compromised. This includes checking for functionality, integrity, and readiness of each part.

2. AFTER INSTALLATION
Once the Safety Pole System and its Horizontal Lifeline (HLL) components have been installed, a qualified person must inspect the entire system to ensure proper assembly and safety compliance. If the system remains installed for an extended duration, it must be re-inspected at regular intervals by a qualified individual to ensure continued integrity.

3. PRIOR TO EACH USE
Every time the system is used, a visual and functional inspection must be performed using a dedicated Inspection Checklist. This step is critical for identifying wear, damage, or misalignment that may have occurred since the last use.

DETAILED PRE-INSTALLATION CHECKLIST
The following components require careful examination prior to installation:

Horizontal Lifeline (HLL) System

- ☐ Energy Absorber: Confirm it is in accordance with manufacturer specifications.

Cable Grip Assembly

- ☐ Release bolt should operate smoothly without excessive force.
- ☐ Release bolt must be properly lubricated.
- ☐ Cable should slide freely in and out of the grip when the release bolt is disengaged.

☞ Importance of Inspections

The Safety Pole System was developed by a high-volume framing contractor seeking to protect workers during the most exposed stages of the framing process—when risk of falls is greatest. Its design responds directly to practical realities of the jobsite, not just theoretical standards.

Inspections serve a vital second role: reinforcing trust in the system's readiness. Human error can never be fully eliminated, but regular inspection is a proven way to limit risk, ensuring all components are in proper working order before work begins.

☞ Pre-Use Inspection Checkpoints

Before every use of the Safety Pole System and Horizontal Lifeline (HLL), a full visual inspection must be completed by a qualified person. These are the main checkpoints:

- ☑ Turnbuckle Integrity
- ☑ Cable Condition
- ☑ Energy Absorber
- ☑ Structural Hardware
- ☑ System Labels

Ensure all safety labels are intact, legible, and affixed in their designated positions. Replace any label that is missing or unreadable before use.

☞ Understand the Stakes!

Failure to correctly install or inspect the Safety Pole system can result in serious injury or death.

This is not a theoretical risk—injury can occur during a fall event or from structural failure.

Turnbuckle Assembly

☐ Ensure bolts are threaded a minimum of 2 inches into the turnbuckle on both sides.

Cable Condition

☐ Inspect for fraying, crushing, or kinking.

☐ Verify that the release bolt extends at least 1½ inches beyond the cable grip and that the cable is securely engaged.

Stabilizing Cables and Come-Alongs

☐ Inspect all hardware and tensioning mechanisms for wear, deformation, or other damage.

☐ D-Rings and Tee-Section Fittings

☐ Inspect all anchorage D-rings on the steel poles and Tee-section for signs of corrosion, bending, or structural damage.

Floor Truss Plate

☐ Examine the plate itself and ensure all four bolts are free of cracks, rust, or deformation.

i **IMPORTANT**

Handle Expended Energy Absorbers With Caution

The tearing of an energy absorber during a fall event leaves extremely sharp edges that may cause injury during handling. Any expended absorber must be treated with care and examined closely for signs of damage or deterioration, in strict accordance with the HLL manufacturer's inspection guidelines.

Do not reuse or reinstall components showing any evidence of damage or failure. Replace all defective parts immediately. All inspection outcomes must be clearly documented in the inspection and maintenance log found in the appendix of this manual.

☑ **Check for Corrosion:** Surface rust or material pitting indicates the need for service or replacement.

☑ **Load Retesting:** Anchors should be retested annually for holding strength.

☑ **Safe Cleaning:** Use only mild detergents and soft cloths to avoid damage.

☑ **Service Documentation:** Keep a log of all inspections and modifications to your pole system.



4.1 Pre-Use Inspection Checklist

Before each use, the Safety Pole system must be thoroughly inspected by a competent person. Use the checklist below to verify component integrity and readiness:

Inspection Point	Criteria
Vertical Pole Sections	No dents, cracks, or deformation; couplers tight and aligned
Base Plate (Slab or Floor Mount)	Anchor bolts tight; plate flush with surface; no signs of movement
Tie-Back Cable Assembly	No kinks, frays, rust, or abrasion; end fittings secure
Turnbuckles	Threads clean and functional; no warping or cross-threading
D-Rings and Welded Brackets	Free of corrosion, cracks, or visible stress wear
Labels and Safety Markings	Clearly legible; serial number visible
SRL or Lanyard (If Equipped)	Functioning retraction; webbing or cable free of cuts or damage
HLL Components (If Configured)	Cable properly tensioned; hardware tight; anchors sound

⚠ **WARNING**
If any defect, damage, or questionable wear is observed, the system must be removed from service and not used until corrected.

4.2 In-Service Visual Checks

During use, operators and observers should remain alert for any of the following:

- Shifting or leaning of the Safety Pole structure
- Tie-back slack or hardware movement under load
- Interference with user movement or fall line
- Signs of loosening at anchorage or D-ring connections

If any condition appears unsafe or unusual, cease use immediately and isolate the area until corrective inspection is performed.

GATE-LOAD HAZARD

Never allow a connector to bear load against its gate.

Snap hooks and carabiners—whether self-locking or not—are not designed to sustain force on their gate mechanism. Under rotation, twist, or misalignment, an open-gate event may occur, causing disconnection and potential system failure. Use only compatible connectors and confirm all attachments are secure, closed, and locked.

Visual inspection is essential.



4.3 Maintenance Requirements

Routine maintenance ensures reliable system function and extends service life. The following tasks must be performed at the intervals listed below.

Task	Frequency	Procedure
Clean pole segments and hardware	After each deployment	Wipe with clean cloth; use mild detergent if residue present
Lubricate turnbuckle threads	Monthly or as needed	Apply dry or graphite-based lubricant only; avoid oil or grease
Inspect cable tension and hardware	Weekly or prior to each use	Use torque and tension as per HLL specs
Replace worn or damaged components	As needed	Only with OEM parts from Safety Pole, Inc.
Verify labeling and compliance tags	Monthly	Ensure OSHA visibility and legibility

NOTE
Do not apply paint or solvent cleaners to any structural component. Avoid corrosive cleaning agents or abrasive materials.

4.4 Out-of-Service Conditions

The Safety Pole system must be removed from service if any of the following are observed:

- ☐ Structural damage to pole, base, or welded components
- ☐ Compromised tie-back cable or hardware
- ☐ Signs of stress fatigue, rust pitting, or weld separation
- ☐ Missing or illegible compliance markings
- ☐ Failed drop test (if required for onsite recertification)

Out-of-service units must be tagged clearly and stored separately until repaired or decommissioned.

SOME MAINTENANCE TIPS

- → Check for Corrosion: Surface rust or material pitting indicates the need for service or replacement.
- → Load Retesting: Anchors should be retested annually for holding strength.
- → Safe Cleaning: Use only mild detergents and soft cloths to avoid damage.
- → Service Documentation: Keep a log of all inspections and modifications to your pole system.

SECTION 5: ASSEMBLY & BASE INSTALLATION

Installation

Proper installation of the Safety Pole System is critical to ensuring effective fall protection and structural stability during elevated work activities. This section provides comprehensive, step-by-step guidance on assembling and deploying the system across a range of framing scenarios, including single-story construction, multi-level structures, and roofline installations. These procedures reflect standard manufacturer specifications and incorporate field-proven methods developed through extensive use in active framing environments.

The Safety Pole System must always be installed in strict accordance with the operational requirements outlined in this manual. Each step must be performed with attention to site conditions, hardware compatibility, and fall clearance limitations. Installers must take care to verify that system components are free from defect prior to deployment, and that assembly is carried out by trained individuals using appropriate equipment and lifting methods.

Throughout this section, diagrams referenced in figures and visual QR-coded supports provide additional guidance and clarification. However, this manual should be used in conjunction with manufacturer-supplied installation diagrams, field training, and regulatory standards. Where multiple configurations are possible—such as HLL placement, tensioning cable layout, or base anchorage—select the option best suited to the structure's design and intended sequence of work. Installers are advised to review the full installation section before beginning, ensuring familiarity with all safety precautions, component nomenclature, and positional requirements. Where unique conditions are present—such as post-tension slabs, irregular elevations, or extended pole height—a site-specific risk assessment and engineering consultation may be necessary.

The procedures that follow are intended to reduce the risk of fall-related injury, improve system reliability, and help framing crews operate with confidence at height. As always, installation must never be rushed or improvised. A properly installed Safety Pole System is one that has been assembled deliberately, verified thoroughly, and maintained with the expectation that lives depend upon its performance.

5.1 Overview

This section outlines the step-by-step procedure for assembling the Safety Pole system and installing the base plate. All installation must be performed by trained personnel following site-specific fall safety protocols. Improper assembly or unauthorized modification voids compliance and must not be attempted.

☑ **PPE Required** Always wear gloves, hard hat, and fall protection when working at height.

☑ **Fall Hazard Zones** Ensure platform edges or drop-offs are clearly marked during pole setup.

☑ **Anchor System Integrity** Do not use poles with visibly damaged anchors or baseplates.

☑ **Inspection Frequency** Poles must be inspected annually or after any fall event.

☑ **Authorized Personnel** Only trained installers may perform anchoring procedures.

5.2 Base Plate Mounting

Safety Pole systems may be mounted to various structural substrates. Always confirm with engineering that the selected substrate meets minimum strength and anchorage specifications.

SLAB MOUNT INSTALLATION

1. Identify a flat, level section of reinforced concrete slab no less than 6 inches thick.
2. Align base plate at designated location. Mark hole positions.
3. Drill anchor holes to the specified depth using an impact drill.
4. Clean debris from holes.
5. Secure the base plate using supplied anchors. Torque to manufacturer specifications.

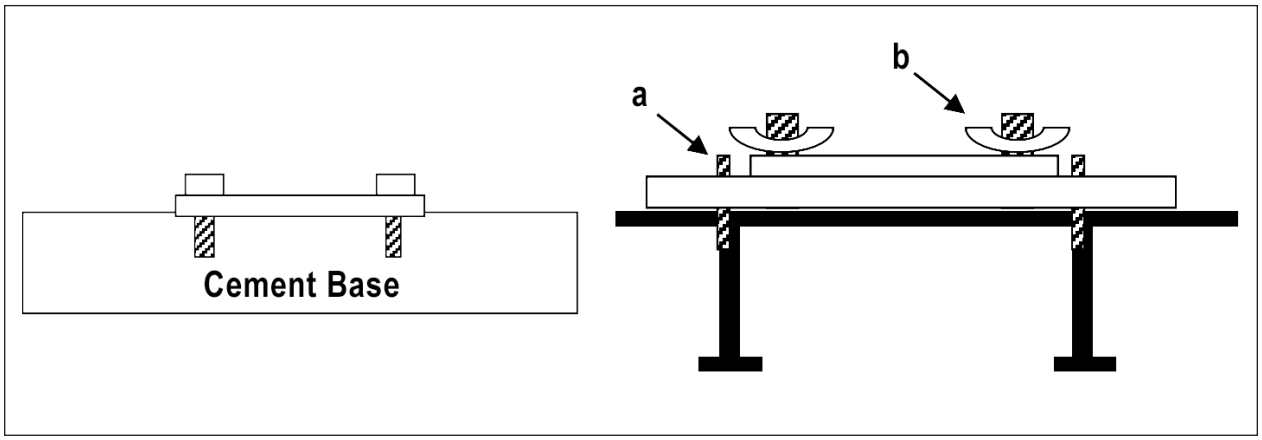


Fig. 3A & 3B: Safety Pole Base Installations. 3A) Base to cement floor with 4 each 4 x 1/2 red-heads or 4 each 4 x 1/2 Simpson TITEN HD Anchors. 3B) Base to floor joists with sub-floor attachment plate 12 x 4" x 1/4 SDS Screws (a) and 4 x 1/2 wing nuts (b).

FLOOR JOIST / BEAM MOUNT INSTALLATION

1. Locate center of joist or beam structure.
2. Use engineered mounting bracket or base design for wood framing.
3. Ensure base is flush with surface and hardware is properly embedded.
4. Verify structural load rating for anchor pattern with site engineer.

PORTABLE WEIGHTED BASE INSTALLATION

1. Position base plate on stable, level surface.
2. Stack ballast blocks or weights in designated holders.
3. Ensure weight meets minimum load requirement for single user (per system design).
4. Level and secure base before proceeding.

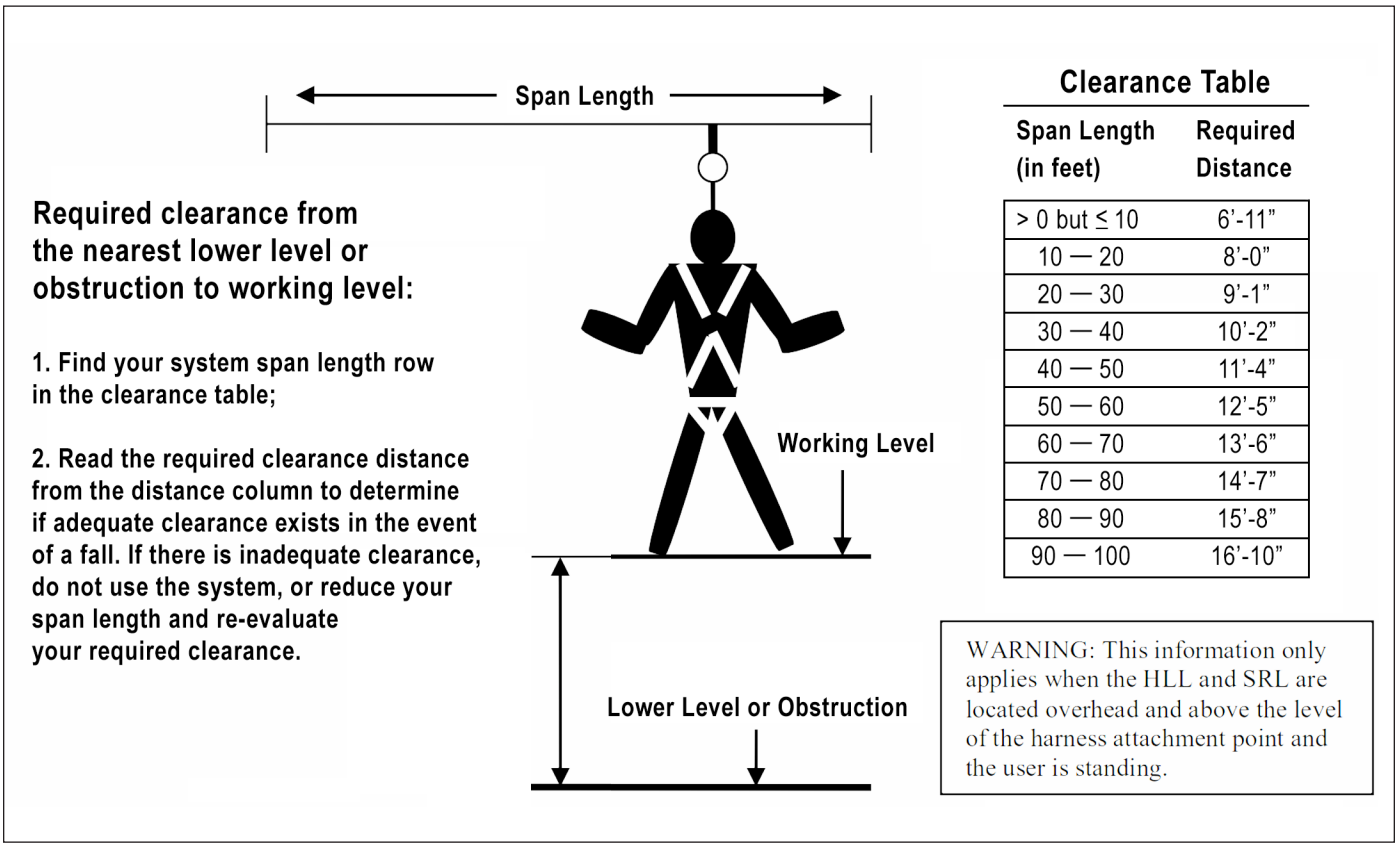


Fig. 7: Fall Clearance Evaluation

NOTE
Do not mount base plates near surface edges, over gaps, or unreinforced areas.

5.3 Pole Assembly Procedure

Once base is secured, proceed with vertical assembly of the pole system.

1. Install the first ten-foot section of the Safety Pole by lifting and sliding the section onto the base.
2. The pole is fully engaged when it is upright and fully inserted on the base.
3. On the ground, slide the T-section onto the five-foot section.
4. Using a forklift, raise the two connected sections and slide onto the ten-foot section.
5. Install the five-foot section by sliding it into the ten-foot section until fully engaged.
6. Use level to confirm vertical plumb after installation.

CAUTION
Do not force components to align. If resistance is encountered, disassemble and inspect for obstruction or damage.

5.4 Safety Checks During Assembly

During the assembly process, the following conditions must be monitored:

- Ensure sections are fully seated and properly engaged with no misalignment
- Verify that no tools or foreign objects are trapped in joints
- Confirm base integrity after each pole segment is added
- Re-check plumb and secure attachment prior to attaching tie-back

Only proceed to tie-back and cable setup once assembly has been visually and mechanically verified by a qualified person.

5.5 INSTALLATION SCENARIOS

Installation on Single-Story Structures

Once the base plates have been securely anchored, begin assembly of the Safety Pole by positioning and installing the vertical components.

1. Initial Pole Section Installation
Begin by lifting the first ten-foot section of the Safety Pole (Section 2) and carefully lowering it onto the secured base. Ensure the section is fully seated and upright—proper engagement is critical for system stability. It is strongly recommended that two workers perform this lift together, or that a mechanical lifting device, such as a forklift, be used to reduce strain or risk of injury. Care should be taken to avoid pinched fingers or improper lifting posture during installation.

2. Top Section and Tee Installation
On the ground, slide the Tee section (Section 4) onto the five-foot upper

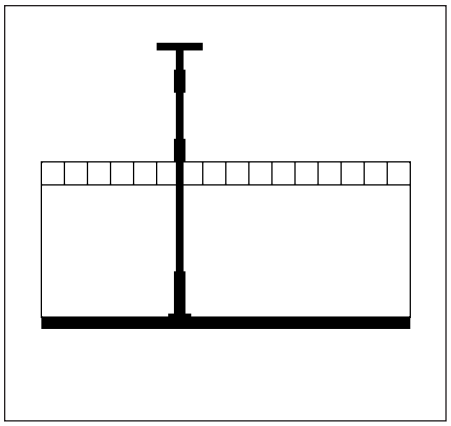


Fig. 1A: First Floor Installation

pole segment (Section 3). Using a forklift and the lifting ring affixed to Section 3, raise both connected pieces and lower them onto the ten-foot pole previously installed. Slide Section 3 into Section 2, ensuring that it is upright and fully inserted. Full engagement is reached when the components are vertically aligned and stable.

3. Installing a Second Safety Pole
If the system includes a Horizontal Lifeline (HLL), repeat the above process to install the second Safety Pole. This includes setting the base, installing the ten-foot and five-foot sections, and attaching the Tee segment. The procedure must also include the preliminary installation of the side tensioning cables on this second pole. Once both Safety Poles have been installed, the system will be ready for HLL configuration.

4. Steadying Cable Installation
Each Safety Pole must be reinforced with three side steadying cables, attached in a “tripod” configuration—one to the rear (opposite the HLL connection point) and one to each side of the pole (Section 2). Refer to Figure 2a for positioning.

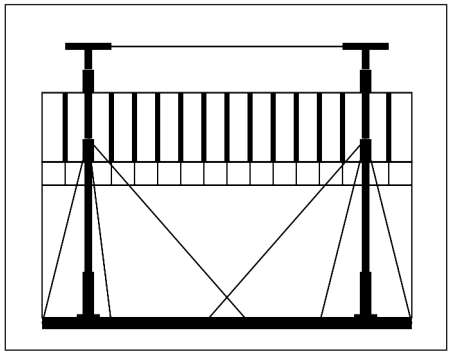


Fig. 2A: Single Story HLL Installation

PLATE SHOE ATTACHMENT

Select the appropriate plate shoe for the framing material in use:

- 2x4 framing (Section 7)
- 2x6 framing (Section 8)
- 3x4 framing (Section 9)

Secure each plate shoe to the exterior wall’s sill plates using six (6) standard 10d common nails, driven through the pre-drilled holes. Proper placement and secure attachment to structural framing members are critical.

Tensioning Cable Setup
Locate the D-ring on Section 3, positioned just below the Tee (Section 4), and attach one end of each tensioning cable (Part 10) to this point. The other end of each cable should be connected to the appropriate plate shoe. If additional cable length is needed, multiple tensioning cables may be linked together. Apply steady tension using the integrated winch system until the cable is taut. Repeat this process for each side cable.

⚠ **IMPORTANT**
If an HLL is being installed, do not tighten the rear tensioning cable until after the HLL components are in place. All tensioning cables must be installed at an angle of no more than 45 degrees relative to the floor.

Figure 2.0 illustrates a representative installation of the Safety Pole Horizontal Lifeline (HLL) system. To ensure optimal performance and compliance with safety protocol, the HLL and its end anchor points must remain positioned above the user’s D-ring connection at all times. This vertical positioning is critical, as it reduces the load transferred to the anchor points in the event of a fall and ensures proper retraction of the Self-Retracting Lifeline (SRL). The SRL, when not under tension, must return to a position above the attachment point on the user’s harness.

The alignment and configuration of the HLL should be carefully considered to minimize both swing fall risk and potential free fall distance. For accurate clearance requirements, reference Figure 7, which provides a detailed fall clearance profile and minimum height recommendations.

The installation procedure proceeds as follows:

1. Attach the Horizontal Lifeline securely to the anchorage connectors located on each Safety Pole. This connection must be made using double-locking carabineers, as demonstrated in Figure 8. These carabineers are designed to prevent accidental disengagement and meet the required tensile strength standards.

2. Eliminate excess slack by manually feeding the wire rope through the cable grip mechanism. The jaw

release bolt must be extended during this step to allow the internal jaws to clamp onto the wire rope. Once extended, the bolt will lock the jaws into place, gripping the cable and preventing movement, as shown in Figure 9.

3. Apply final tension to the wire rope by adjusting the rear-side steadying cable of each Safety Pole. Tighten this tensioning cable until the unsupported sag at the center of the HLL span measures no more than six inches, with no load applied to the system. This ensures the cable is properly tensioned and capable of maintaining its intended profile during use.

Multi-Story Structure Installation

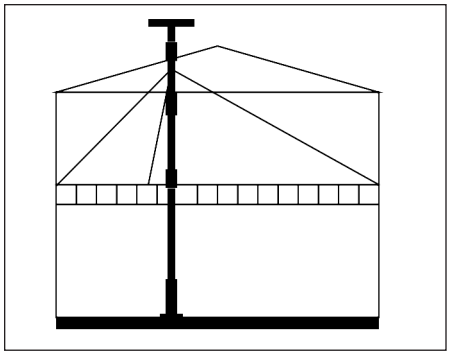


Fig. 1.B : Second Floor Installation

For multi-story builds, the installation of the Safety Pole System follows a similar sequence to that of single-story configurations, but introduces additional reinforcement and sheathing procedures specific to upper-floor framing. These additional precautions support both the stability of the system and safe integration into platform framing workflows.

Once the base or bases have been properly anchored—whether to concrete or subfloor—the first ten-foot pole segment (Section 1) is installed. This is accomplished by carefully lifting the segment and sliding it vertically onto the base until fully seated. The segment must stand fully upright and rest flush within the base sleeve. Due to its weight and height, it is recommended that this procedure be carried out by two workers or by one worker using a mechanical lift such as a forklift. Installers should take care to avoid pinching fingers or sustaining back injuries during lifting or placement.

Before proceeding, the floor area around the base must be tightly sheeted with plywood decking. The sheathing must meet the pole as closely as possible, with a maximum gap tolerance of ¼ inch. This sheathing ensures the stability of the floor platform surrounding the base and minimizes the risk of movement or displacement.

When the system is being used for tasks such as installing exterior walls on an upper story—as depicted in Figure 1a—the following procedure should be observed:

On the ground, slide the tee connector (Section 4) onto the five-foot pole segment (Section 3). Using the integrated lifting ring of Section 3, elevate the combined sections using a forklift. Once raised, align and lower this assembly onto the previously installed ten-foot segment. The five-foot section should nest fully into the top of the ten-foot pole. Confirm that it stands upright and is seated flush without excess gap or misalignment. At this point, the tee connector will rest at the top of the assembled pole.

If a horizontal lifeline (HLL) system is to be used, repeat this full installation sequence for the second Safety Pole, ensuring both poles are upright, structurally stable, and fully assembled. Only once both poles are in position and secure should the HLL be installed between them.

As shown in Figure 2.0, the HLL and its end anchor points must be positioned above the user's D-ring attachment at all times. Proper vertical clearance reduces loading on anchor points in the event of a fall. The self-retracting lifeline (SRL), when not under load, must remain fully retracted to a point above the user's harness level.

The HLL system must be positioned to minimize both swing fall and free fall risk. When determining placement, fall clearance data in Figure 7 must be carefully reviewed to ensure compliance with minimum vertical distance requirements.

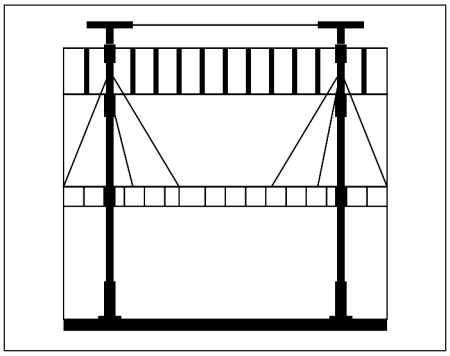


Fig. 2B: Second Story HLL Installation

To install the HLL

Attach the HLL to the anchorage connectors on each Safety Pole using either double-locking carabiners or rated shackles, as shown in Figure 8. These connectors must meet or exceed applicable strength standards.

Pull excess slack from the wire rope by feeding it through the cable grip mechanism. Extend the jaw release bolt as illustrated in Figure 9. This will allow the internal jaws of the grip to engage and securely clamp the rope in place.

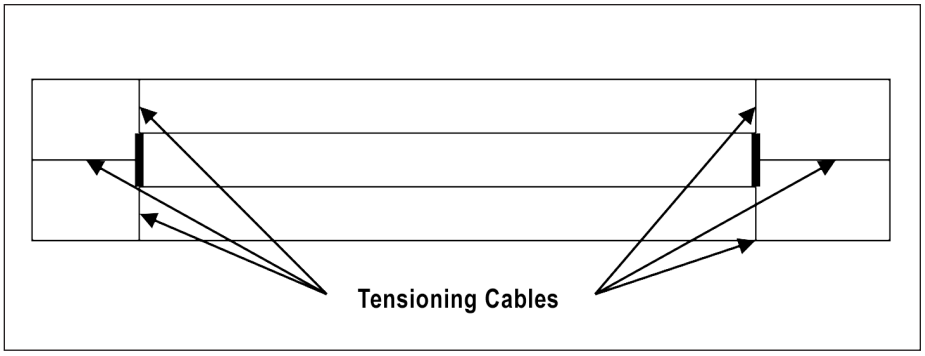


Fig. 2C: Tensioning Cable Placement

Final tension is applied by adjusting the rear-side steadying cables. Tighten these until the sag at the midpoint of the HLL is six inches or less, with no load present. This ensures proper deflection limits are maintained and that the system is prepared for use.

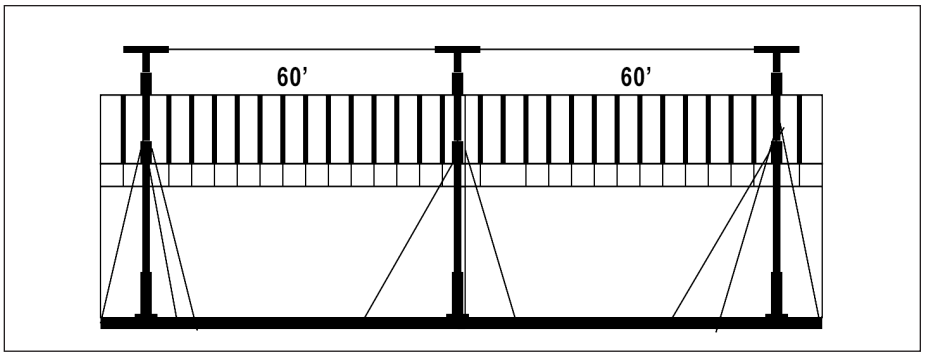


Fig. 4: Multiple Span System

Installation for Roof Trusses, Sheathing, and Fascia – Second Story Structures

When the Safety Pole System is utilized during the installation of roof trusses, roof sheathing, or fascia on a second-story structure—as illustrated in Figure 2b—additional vertical height must be accounted for. The fully assembled Safety Pole must extend a minimum of three feet above the highest roof line. If necessary, install additional pole sections to achieve this required height before proceeding.

Following the completion of the second-floor exterior wall installation, the previously deployed horizontal lifeline (HLL) assemblies must be disassembled. Begin this process by reducing the tension on the rear-facing steadying cable. Carefully unclip the double-locking carabiners or shackles from each pole’s HLL attachment points. Once the cable is free, the upper pole sections (Sections 3 and 4) may be lifted as one assembly using the integrated lifting ring on Section 3. Slide these upper segments out of the ten-foot base section (Section 1). This completes the disassembly and prepares the system for vertical extension to roof height.

Next, transport the second ten-foot segment (Section 2) to the second-story platform using a forklift or mechanical lift. Slide this segment vertically onto the base segment (Section 1). The segment is considered fully seated when it stands upright and its internal sleeve is fully engaged within the lower section.

Prepare the next assembly by sliding the tee connector (Section 4) onto the five-foot segment (Section 3) while both are still on the ground. Lift these two connected sections using the lifting ring on Section 3, and carefully align and lower them into place on top of Section 2. As before, Section 3 must seat fully into the preceding segment, forming a continuous pole assembly of the required elevation.

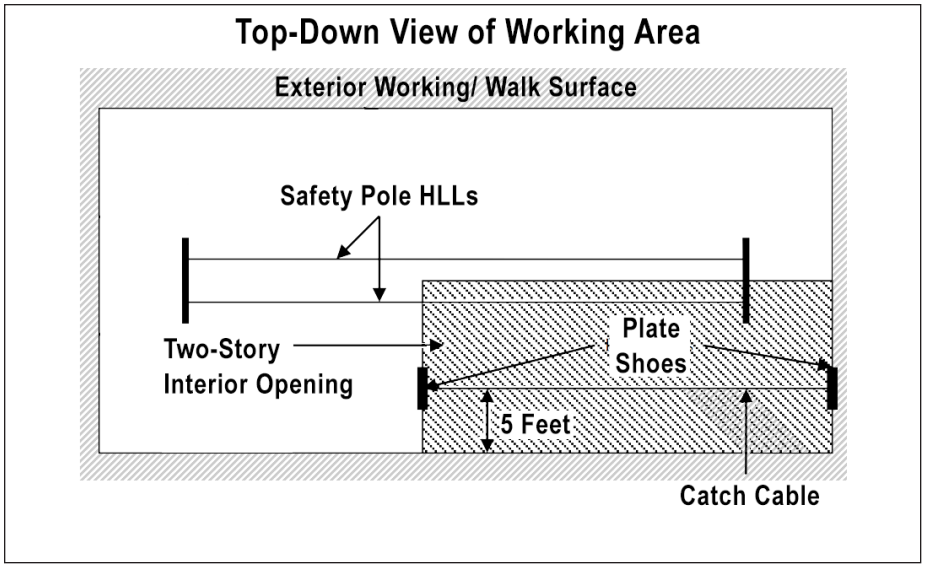
Repeat this full assembly procedure for the second Safety Pole. Only when both poles have been securely installed to their full extended height should the new HLL system be installed.

Install the three side-positioned steadying cables as shown in Figure 2a. These cables are to be attached at the back (opposite side of the HLL line) and both lateral faces of each Safety Pole, just below the tee connector on Section 4.

Begin by selecting the appropriate plate shoe type based on the framing: 2x4 (Section 7), 2x6 (Section 8), or 3x4 (Section 9). Affix each plate shoe to the exterior wall sill plates using six 10d common nails, through the pre-drilled holes in the shoe base. Reference Figure 6 for correct placement.

Locate the D-rings on each Safety Pole directly beneath the top section. Attach the tensioning cables (Part #10) to these D-rings and secure the opposite ends to the installed plate shoes. If the distance between pole and plate shoe exceeds a single cable's reach, tensioning cables may be joined in series.

Use the cable winch to tighten each line and maintain steady tension. Do not yet tighten the rear-facing tensioning cable if a HLL system is being installed. All tensioning cables must maintain a slope no greater than 45 degrees above the floor to ensure stability and compliance.





HLL MAINTENANCE & O-RING REPLACEMENT

Proper care of the Horizontal Lifeline (HLL) system requires regular maintenance, including inspection and upkeep of both cable components and hardware assemblies. This section includes two key maintenance processes: routine HLL care and periodic O-ring replacement in the roller unit. Follow the visual steps in the callouts below and scan the QR codes for video demonstrations. These procedures are critical to ensuring continued safety, OSHA compliance, and extending the service life of your Safety Pole system.

HLL MAINTENANCE

Routine cleaning and inspection of the Horizontal Lifeline (HLL) system helps extend product life and ensures optimal safety performance. Ensure that all HLL components are free from debris, damage, or corrosion before and after each use. Follow all video-linked guidance to correctly execute inspection protocols.

HLL-01: Loosen the turnbuckl before disassembly begins.

HLL-02: Disconnect the hollow bolt and pull it 1ft from the cable grab.

HLL-03: Remove back-cylinder and spring extend both 2ft beyond the turnbuckle.

HLL-04: Gently remove the jaw assembly and separate jaw pieces with care.

HLL-05: Clean each jaw piece with brake cleaner and dry thoroughly.

HLL-06: Scrub jaw surfaces with wire brush (avoid threads).

SECTION 6: TIE-BACK CABLE INSTALLATION

6.1 Overview

The tie-back cable provides critical structural counterforce to the vertical Safety Pole and must be properly installed, tensioned, and anchored before the system is placed in service. Only personnel trained in fall protection system assembly should perform this procedure.

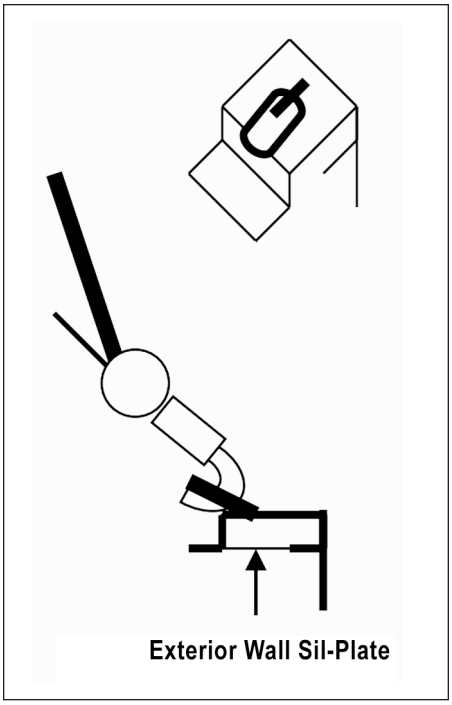


Fig. 6: Plate Shoe

6.2 Equipment Required

- ☐ Pre-installed upper tie-back bracket
- ☐ Galvanized steel cable with pre-swaged eyes
- ☐ Turnbuckle (closed or open type, as supplied)
- ☐ Carabiners or clevises (rated)
- ☐ Approved anchor point (minimum required load rating)
- ☐ Torque wrench and socket set

All components must be in good condition, free of rust, kinks, or damage. Only OEM components supplied by Safety Pole, Inc. are approved.

6.3 Installation Procedure

1. ATTACH CABLE TO POLE BRACKET

- Insert clevis or rated carabiner through swaged eye of cable.
- Secure to upper tie-back bracket at top of pole using provided hardware.
- Verify full seating and locking of gate.

2. ROUTE CABLE TOWARD ANCHOR POINT

- Extend cable in straight line to pre-verified structural anchor.
- Ensure no interference with equipment, personnel pathways, or wall elements.
- Maintain downward angle of 15°–45° from horizontal.

3. CONNECT CABLE TO ANCHOR

- Attach second swaged eye to anchor point using turnbuckle assembly.
- If using wall mount bracket, ensure bracket is flush and secured to structural member.

4. INSTALL AND TENSION TURNBUCKLE

- Thread turnbuckle onto anchor-side fitting.
- Rotate turnbuckle evenly until cable is taut.
- Verify cable has no slack but does not induce upward bow in pole.
- Lock turnbuckle with supplied nuts or clips.

6.4 Angle and Load Considerations

- ➞ Minimum angle: 15° from horizontal
- ➞ Maximum angle: 45° from horizontal
- ➞ Maximum cable length: As specified in system configuration sheet
- ➞ Load rating: Tie-back anchor must meet minimum force requirement per OSHA and site engineering spec

i **NOTE**
Avoid routing cable over rough or sharp surfaces. Do not route under foot traffic or obstruction paths.

6.5 Safety Verification and Warnings

☑ Confirm all connection points are tight, clean, and aligned

☑ Do not allow cable to contact electrical conduit or moving mechanical systems

☑ Cable tension should be verified before each use

☑ Never attach to temporary or non-structural anchor points

⚠ **WARNING**
Failure to properly tension or secure the tie-back assembly may result in system failure or collapse under load. Do not modify or shorten cables in the field.

HLL MAINTENANCE (CONT.)

HLL-07: Clean inside-cylinder by spraying and brushing thoroughly.

HLL-08: Scrub inside of back-cylinder cap and apply brake cleaner to interior.

HLL-09: Apply a pea-sized amount of anti-seize to back-cylinder threading.

HLL-10: Apply anti-seize ¼ inch up from the bottom of the hollow bolt threading.

HLL-11: Reinsert jaw pieces through the O-ring, aligning carefully into place.

HLL-12: Apply a paper-thin coat of anti-seize on jaw exterior only—never in crevices.

HLL-13: Reassemble spring and jaw into the cable grab's inside cylinder.

HLL-14: Reinsert and tighten the hollow bolt ½ inch back into screw port.

HLL-15: Confirm all components are dry, secure, and correctly placed before final use.

SECTION 7: HLL (HORIZONTAL LIFELINE) INSTALLATION

7.1 Overview

The Horizontal Lifeline (HLL) system enables secure, multi-user fall protection across extended work zones. The Safety Pole HLL configuration incorporates tensioned steel cable, anchor brackets, and shock-absorbing inline devices. The system must be installed exactly as specified to maintain compliance with OSHA fall protection requirements and prevent catastrophic failure.

7.2 System Components

- Pre-mounted upper D-rings or HLL brackets on pole tops
- Steel cable (rated and specified length)
- In-line shock absorber
- Turnbuckle or tensioning device
- Intermediate cable supports (if required)
- End anchor terminations with locking carabiners
- Cable clamps or thimbles (OEM)
- Warning flagging and user signage

NOTE
Only OEM-supplied HLL kits may be used. Mixing components from different manufacturers voids system certification.

7.3 Installation Procedure

1. POSITION SAFETY POLES
- Place poles at predetermined spacing per engineering spec (typically 20–30 feet).
- Verify all poles are plumb and fully assembled with tie-back cables installed.

2. INSTALL END ANCHOR TERMINATIONS
- Attach thimble and swaged end of HLL cable to first anchor D-ring.
- Secure using locking clevis or approved carabiner.
- Confirm closed and locked orientation.

3. ROUTE CABLE THROUGH INTERMEDIATE SUPPORTS (IF APPLICABLE)
- If system exceeds 30 ft, install intermediate cable support at midpoint.
- Route cable through guide to minimize sag and maintain alignment.

4. ATTACH SHOCK ABSORBER AND TENSIONING END
- Connect inline energy absorber near final anchor pole.
- Secure second cable end with turnbuckle assembly.
- Tension cable until taut, with 4–6 inches deflection under hand pressure.

5. SECURE AND LOCK ALL HARDWARE
- Tighten cable clamps to torque specification.
- Lock turnbuckles.
- Attach warning flag mid-span for visibility.

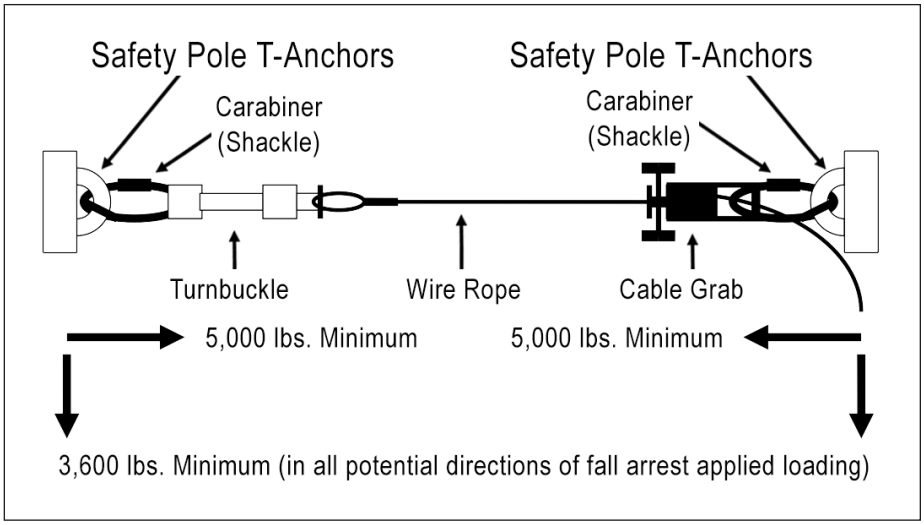


Fig. 8: Horizontal Lifeline (HLL)

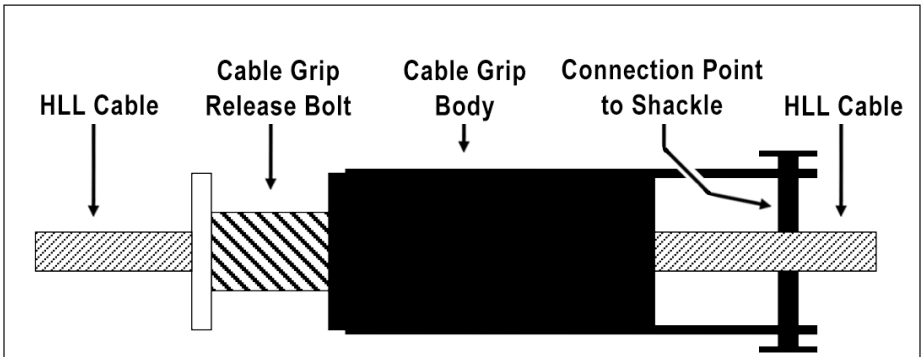


Fig. 9: Cable Grip

7.4 System Limits & Usage Parameters

- Max span (2 poles): 30 ft
- Max span (with intermediate support): 60 ft
- Max users: 2 (per HLL span unless specified otherwise)
- Minimum clearance below lifeline: As required for fall arrest clearance (see chart in Appendix)
- Shock absorber must always be inline with cable

⚠ **WARNING**
Failure to properly install and tension the HLL system may result in fatal fall arrest failure. Only trained personnel may install or verify HLL setup.

HLL MAINTENANCE (CONT.)

O-RING REPLACEMENT

Periodic inspection and replacement of O-rings are essential to maintain the integrity of sealed connections and prevent premature component wear. Visually inspect the O-ring for cracking, compression set, or signs of fatigue. Replace only with manufacturer-approved components.

OR-01: Cut and remove the damaged O-ring with shear cutters after jaw removal.

OR-02: Lubricate cable above back-cylinder cap with anti-seize (2–3 inches).

OR-03: Gently slide new O-ring toward the back-cylinder cap.

OR-04: Rotate back-cylinder while pinching the O-ring to feed it through grooves.

OR-05: Use a small flathead screwdriver to help guide O-ring through cap.

OR-06: Pinch O-ring with cable-grab spring and guide through spring's center.

OR-07: Wipe excess anti-seize from O-ring and cable before reassembly begins.

7.5 Safety Notes and Inspection

- ➞ Always inspect cable for frays, corrosion, or deformation before use.
- ➞ Verify all anchor points are structurally rated and undamaged.
- ➞ HLL must never be installed at more than 15° vertical differential between poles.
- ➞ Do not tension beyond manufacturer specs to eliminate sag—this may damage anchors or Woverstress cable.
- ➞ Remove from service immediately if any component is damaged, bent, or improperly seated.

Inspection Checklist Prior to Installation

Step	Inspection Item	Details	Status
#1	Inspect all components of Horizontal Lifeline (HLL)		
	HLL Energy Absorber	Must meet manufacturer's specifications	
	Cable Grip	Must be functional	
	Release bolt movement	Must move smoothly without excessive force	
	Release bolt lubrication	Must be properly greased	
	Cable Engagement	Cable must slide smoothly in and out of Cable Grip when release bolt is not enaged	
	Turnbuckle Engagement	Bolts must be a minimum of 2" inside turnbuckle on both sides	
	Fraying/Bending	Check for fraying and bends in cable	
	Release Bolt Extension	Must show at least 1-1/2" of thread beyond the Cable Grip body and engage he cable securely	
#2	Inspect all stablizing cables and come-alongs for damage		
#3	Inspect D-Rings on steel poles and Tee-Sections for damage		
#4	Inspect Floor Truss Plate for damage		
	Inspect all four (4) bolts	Check for damage	

Inspection After Installation & Before Each Use

#1	Base is secure to concrete or wood floor truss system		
	a) Concrete slab install	Four (4) ⅜" or ½" x 4" Titan HDs used on each base; all bolts secure and tight	
	b) Wooden truss install	Twelve (12) total SDS 3½" screws used : six (6) per side, four (4) wing nuts hand-tight	
2	All Shoes are properly installed		
3	Correct tension on stabilizing cables		
4	Horizontal Lifeline Deflection	Must not exceed 6"	

SECTION 8: MAINTENANCE & INSPECTION

8.1 Overview

Regular inspection and proper maintenance of the Safety Pole and HLL system are essential to ensuring worker safety and long-term system performance. This section outlines required visual checks, component serviceability criteria, and guidelines for handling and care of the system.

8.2 Inspection Protocol

DAILY (PRE-USE) INSPECTION

- Pole structure: Check for dents, cracks, bent sections, or corrosion
- Cable: Ensure no fraying, kinking, corrosion, or broken strands
- Connectors: Verify all carabiners, clevises, and bolts are secure and free of damage
- Tie-back and anchors: Confirm cable tension and secure termination at both ends
- HLL shock absorber: Check for visible deformation or deployment
- Warning signage: Ensure tag lines or flags are in place and legible

PERIODIC (MONTHLY) INSPECTION

- Base and substrate integrity (check anchor embedment and any signs of movement)
- Turnbuckle wear or threading damage
- Intermediate HLL supports (if applicable): Confirm they are not bent, loosened, or misaligned
- D-ring brackets and pole tops: Check for weld cracks or mechanical wear
- Any component marked as “damaged” during daily inspection must be removed from service immediately

8.3 Service Life and Replacement

Safety Pole components must be removed from service if:

- Any deformation, corrosion, or damage is present
- Shock absorber has deployed (requires full replacement)
- Manufacturer service interval is exceeded (see safety inspection log)
- Visual damage or field modification is evident
- Cable has been exposed to chemical or mechanical damage

⚠ **CAUTION**
Do not attempt to repair cable, shock absorbers, or structural elements in the field. Use only OEM replacement parts. Contact Safety Pole, Inc. for authorized service kits or replacement assemblies.

WARNINGS & IMPORTANT NOTICES

WARNING: This product is part of a fall protection system. The users must read and follow the manufacturer’s instructions for each component of the system. These instructions must be provided to the users of this equipment. *The users must read and understand these instructions or have them explained to them prior to using the 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: OSHA regulations require that horizontal lifelines shall be installed and used under the supervision of a qualified person (see below for definition) as part of a complete personal fall arrest system that maintains a safety factor of at least two.

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 structure elements such as rebar or cross members that are not shaped in a way that can capture the gate of the hook.

STRUCTURAL LOAD: Structural anchorage points must be rigid, and capable of supporting at least 5,000 lbs. along the axis of the horizontal lifeline. Anchorages must also support at least 3,600 lbs. applied in all directions of fall arrest that are perpendicular to the axis of the horizontal lifeline. See figure 8.

WARNING: Do not alter or intentionally misuse this equipment. Consult Safety Pole Inc., 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.

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

8.4 Cleaning & Storage

- Remove dirt or debris using a clean, dry cloth
- For cable components, apply light oil if required to prevent surface corrosion
- Do not use solvents or abrasive cleaners on any system component
- Store poles and cables in a dry, secure location protected from weather and UV exposure
- Do not store near corrosive materials or open flame

8.5 Maintenance Records

Maintain an inspection and service log including:

☑ Date of inspection

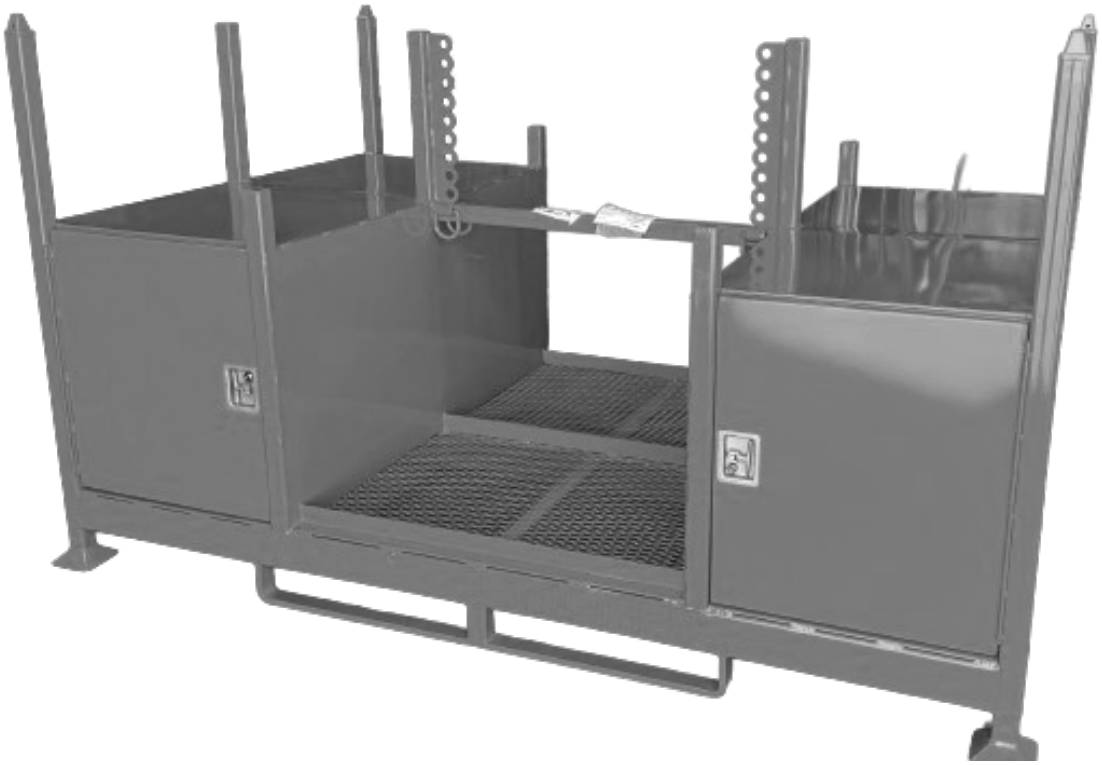
☑ Name of inspector

☑ Components checked

☑ Defects found

☑ Actions taken (repair, replacement, or removal from service)

i **NOTE**
Log must be available on site and presented upon request by OSHA, safety auditors, or site supervisors.



Safety Pole Three System Rack Cabinet is a ground-breaking innovation that transforms worksite efficiency.

SECTION 9: SYSTEM DISASSEMBLY AND RELOCATION

9.1 Overview

Disassembling the Safety Pole System must be approached with the same care, planning, and adherence to safety protocols as its installation. The steps below provide a complete and recommended procedure for system takedown, ensuring the integrity of both the equipment and the structure while prioritizing worker safety throughout.

To begin, any worker disassembling the system from the roof should first don a compliant fall protection harness and secure themselves to a permanent roof anchor point using a shock-absorbing lifeline. This tie-off is not optional; it is a critical control measure to prevent injury in the event of a slip or loss of balance during removal of elevated components.

The disassembly sequence starts with the Horizontal Lifeline (HLL). Before removal, tension on the system must be gradually released by adjusting the back steadying cable. Once the system is no longer under load, the double-locking carabiners or other connecting hardware may be safely unclipped from the D-rings and anchor points of the Safety Pole assembly.

Following HLL removal, the upper sections of the pole must be carefully dismantled. The T-section (Section 4) and the five-foot section (Section 3) are to be lifted out of the ten-foot base pole (Section 2 or Section 1). The recommended method for removal is by engaging the integrated D-ring at the top of Section 3 using a forklift or similar lifting apparatus. Once separated, the upper pole assemblies should be lowered to the ground in a controlled fashion and placed in a safe staging area.

With the upper pole sections removed, attention should turn to the tensioning cables. From within the structure, detach each cable from its base shoe and pole connection point. Any hardware or bracketry used to affix these components must also be removed at this time and stored for reuse or inspection.

The remaining ten-foot sections of the Safety Pole may now be separated and lowered. Take care during this step, particularly if flooring or sheathing has shifted during the build. The base section should be the final element to be removed. To do this, loosen and remove the securing nuts from the anchor bolts at each corner of the baseplate. If permanent anchor bolts were used during installation, these should be cut flush with the structural surface to prevent trip hazards or interference with subsequent construction tasks.

Once fully disassembled, all components should be inspected, cleaned, and stored according to the maintenance guidelines in Appendix B of this manual. Damaged or deformed parts must be taken out of rotation and replaced prior to any future deployment.

9.2 Pre-Disassembly Checklist

- ☐ Confirm work zone is clear of personnel not involved in takedown
- ☐ Inspect system components for visible damage or corrosion
- ☐ Review fall protection status of area—alternate safety measures must be in place during disassembly
- ☐ Identify storage location or reinstall site and prepare ground protection if needed

9.3 Disassembly Procedure

1. DEACTIVATE HLL (IF INSTALLED)
- Detach user connections and remove inline shock absorber
- Loosen turnbuckle and disconnect end terminations
- Coil cable loosely for transport—do not over-bend or kink

2. REMOVE TIE-BACK SYSTEM
- Disconnect from anchor point first
- Remove cable from pole tie-back bracket and turnbuckle
- Coil and store with label/tag indicating matched pole set

3. DISMANTLE POLE ASSEMBLY
- Begin with upper pole sections: slide segments apart and lower using safe manual handling practices
- Once reduced to base section, remove from floor plate or mounting bracket
- Inspect all collars, and mechanical joints for damage before storage

4. DISASSEMBLE BASE MOUNTS
- If using freestanding base, remove counterweights or fasteners before relocating
- If surface-mounted, extract anchors only after verifying system is no longer under load9.

5. TRANSPORT & HANDLING
- Transport all components in padded or strapped containers to avoid shock, bending, or mechanical stress Do not drag cable across abrasive or dirty surfaces
- Store HLL kits and poles separately to prevent loss or mix-up of matched components
- Label storage crates with system ID and last inspection date if applicable

9.4 Reinstallation Conditions

- Before reinstalling, confirm all disassembled components have passed visual inspection
- Replace any component exhibiting wear, corrosion, or deformation
- Reinstallation must follow Sections 5 through 7 of this manual in order and under competent supervision

9.4 Warnings & Special Notes

The disassembly and relocation of the Safety Pole System requires not only adherence to proper procedure but also vigilance in maintaining the integrity and traceability of all components. Improper handling, unauthorized repairs, or reuse of damaged parts can compromise system safety and lead to serious injury or equipment failure. The warnings provided throughout this guide must be reviewed by all crew members prior to breakdown and transport.

Due to the system's total weight and the bulk of its individual components—including 10' pole sections, bases, and tension hardware—workers must be physically capable and trained in safe lifting techniques. Personnel performing disassembly should be in good health, wear appropriate protective equipment, and use mechanical assistance where necessary to avoid strain or injury.

i Remember: Safety warnings serve as non-negotiable safety directives and must be followed on the worksite without exception.

SECTION 10: TROUBLESHOOTING

10.1 Overview

This section provides a reference for identifying and resolving common issues encountered during installation, use, and reinstallation of the Safety Pole system. All corrective actions must comply with approved Safety Pole procedures. If a problem cannot be resolved using the guidance below, discontinue use and contact Safety Pole, Inc.

10.2 Common Installation and Operational Issues

Improper installation or overlooked tensioning is among the most frequent causes of Safety Pole performance concerns. Leaning or unstable poles are often the result of uneven base placement, improperly seated sections, or insufficient tie-back cable tension. Likewise, when the Horizontal Lifeline (HLL) cable exhibits visible slack or sag, it typically indicates an unengaged turnbuckle or missed adjustment step during setup. These issues not only compromise system stability but may also reduce compliance with OSHA fall protection standards if left uncorrected. Ensuring that each pole section is fully seated, and that cable tensions are carefully verified during final installation checks, is critical to operational safety.

Other operational challenges may stem from overlooked damage or incomplete equipment kits. A deployed shock absorber, for example, signals that the system may have experienced a fall event or was subjected to inappropriate load forces—such units must be immediately removed from service and replaced with original equipment. Misrouted cables or bent tie-back brackets can impair performance, while excessive pole sway typically results from overextended configurations or incorrect tie-back angles. These common issues underscore the importance of routine inspection, careful material tracking, and adherence to the manufacturer's setup protocols to ensure reliable, safe use of the Safety Pole System at every jobsite.

Issue	Possible Cause	Corrective Action
Pole leans after setup	Base not level; improper section seating	Confirm base is flat and all pole sections are seated
Pole feels unstable	Insufficient tie-back tension; loose fasteners	Retension tie-back line and confirm all bolts and clevises are secure
HLL cable slack or sags	Turnbuckle not fully engaged	Rotate turnbuckle to tighten cable to proper tension
Shock absorber deployed	Prior fall event or misuse	Remove absorber from service immediately and replace with OEM part
Tie-back bracket misaligned	Cable routed improperly or bracket bent	Verify cable routing; do not use bracket if visibly deformed
Hardware missing or lost	Incomplete kit tracking	Cross-check components with Bill of Materials and reorder as needed
Excessive sway during use	Pole height exceeds recommended limits or tie-back misconfigured	Verify pole height is within specified range and tie-back angle is correct

10.3 Warning Signs of Unsafe Conditions

- Visible corrosion on cable, brackets, or pole segments
- Cracked welds or distorted metal at anchor or mounting points
- Difficulty sliding pole sections or rotating collars due to deformation
- Slipping or unthreading fasteners after torqueing
- Abrasion or discoloration of shock absorber sleeve
- Unusual sound (creaking, pinging) during use

If any of the above are observed, immediately remove the system from service and consult Safety Pole, Inc. for inspection or replacement guidance.

⚠ **NEVER**
Reuse damaged, bent, or modified components

⚠ **DO NOT** attempt field repair of tie-back cables, D-rings, or shock absorbers
Failure to reinstall system as per manual instructions may result in structural failure or fall hazard
Keep hardware and components organized and properly tagged during relocation

10.4 Manufacturer Assistance

If troubleshooting does not resolve the issue, contact Safety Pole, Inc. Technical Support:

Phone: (as listed on manufacturer's official contact sheet)

Email: (as listed on official Safety Pole documentation)

Reference: product serial number, date of last inspection, and location of use

SECTION 11: WARRANTY AND LIMITATIONS OF LIABILITY

11.1 Manufacturer Warranty

Safety Pole, Inc. warrants its fall protection systems and components to be free from defects in material and workmanship under normal use and service. This warranty extends for one (1) year from the date of purchase, provided that the product has been used in accordance with manufacturer instructions and maintained as described in this manual.

This limited warranty covers only the original purchaser and is non-transferable.

11.2 What Is Covered

- Structural components and mechanical hardware of the Safety Pole system
- Factory-installed hardware and integrated fittings
- Horizontal Lifeline (HLL) cable assemblies and shock absorber components
- Tie-back hardware, tensioning systems, and anchor connectors
- Damage due to shipping (if reported within 10 days of delivery)

Defective parts that fall under warranty may be repaired or replaced, at the sole discretion of Safety Pole, Inc., after proper evaluation and return authorization.

11.3 Exclusions

This warranty does not cover:

- Normal wear and tear due to use in industrial environments
- Damage caused by misuse, improper installation, alteration, or unauthorized repair
- Product subjected to falls, shock loading, or excessive heat
- Exposure to corrosive materials, caustic chemicals, or storage in non-compliant environments
- Components that have exceeded service life limits or show signs of abuse

11.4 Conditions That Void Warranty

The warranty will be void if:

- Equipment has been used in a manner inconsistent with the provided instructions
- System components are modified, substituted, or repaired by an unauthorized party
- Inspection records are not maintained as required (see Section 8)
- The product is used beyond its rated capacity or outside of its design parameters

11.5 Limitations of Liability

In no event shall Safety Pole, Inc. be liable for:

- Indirect, incidental, or consequential damages
- Labor charges, downtime, or loss of productivity
- Injury or loss resulting from failure to follow installation, inspection, or usage guidelines

Responsibility for compliance with OSHA, ANSI, and other applicable safety regulations lies solely with the employer or installer.

11.6 Return and Evaluation Procedure

Prior to returning any item, contact Safety Pole, Inc. for a Return Merchandise Authorization (RMA) number. The following must be provided:

- ☑ Product model and serial number
- ☑ Purchase date and proof of purchase
- ☑ Description of issue or damage
- ☑ Photos of product condition if applicable

Products returned without an RMA will not be accepted. Return shipping costs are the responsibility of the customer unless otherwise authorized.

SECTION 12: INSPECTION REQUIREMENTS AND RECORDKEEPING

12.1 Inspection Frequency

To ensure continued safety and compliance, the Safety Pole system and its associated Horizontal Lifeline (HLL) components must be inspected:

- Before each use (visual check by the authorized user)
- At least every 6 months (formal inspection by a Competent Person)
- After any fall arrest event or suspected impact
- After prolonged storage or transport
- Immediately if exposed to corrosive environments, heat, or mechanical shock

Components exhibiting signs of wear, damage, or degradation must be removed from service immediately.

12.2 What to Inspect

Inspections should include, but are not limited to, the following system components:

- Safety Pole Shaft and Base: Check for bends, dents, corrosion, and mounting security
- Ensure sections are fully seated and aligned
- Tie-Back Cable and Anchors: Look for fraying, cuts, deformation, and secure connection
- HLL Cable and Tensioner: Verify cable integrity, proper tension, absence of kinks or bird-caging
- Shock Absorber: Ensure no signs of deployment, damage, or heat stress
- Attachment Hardware: Confirm carabiners, and connectors are clean, functional, and show no wear
- Labels and Markings: All manufacturer labels must be present and legible

12.3 End-of-Life Criteria

Remove any component from service if it exhibits:

- Visible damage such as deformation, deep abrasion, cracks, or corrosion
- Wear exceeding manufacturer’s recommendations
- Evidence of loading, impact, or chemical degradation
- Absence or illegibility of critical identification labels
- Alteration or substitution of original components
- Expiration beyond designated service life (if specified by manufacturer)

⚠ **BE AWARE**
No component that has sustained a fall arrest load may be reused unless recertified by the manufacturer.

12.4 Inspection Records

Formal inspections must be logged using a standardized inspection form. Records should include:

- ☑ Date of inspection
- ☑ Name and qualifications of the inspector
- ☑ Findings and any corrective action taken
- ☑ Signature of inspector
- ☑ Serial numbers of inspected components

Records must be retained for the service life of the equipment and made available upon request for safety audits or incident reviews.

APPENDIX A: GLOSSARY OF TERMS

This glossary defines key terms and standardized nomenclature used throughout the Safety Pole Installation Manual. It is intended to provide a clear, consistent reference for understanding the components, procedures, and safety considerations associated with the Safety Pole fall arrest system. Each entry reflects manufacturer-supplied terminology and regulatory language to support accurate installation, maintenance, and use in the field.

Anchor Plate
A steel base component that secures the Safety Pole to the structural substrate. Used in permanent or temporary installations where mechanical fastening is required.

Anchorage
A secure point of attachment for lifeline systems, typically part of a certified fall protection assembly. Must meet the strength and design criteria specified by applicable regulatory standards.

Attachment Point
A designated location on the Safety Pole or HLL system where a personal fall arrest system (PFAS) or lanyard may be securely connected.

Base Plate
The structural foundation plate for the Safety Pole, designed to be fixed in place during installation. May be embedded in concrete or mounted mechanically.

Cable Clamp
A mechanical fitting used to secure the ends of the horizontal lifeline cable. Typically installed in sets of three for redundancy and load distribution.

Cable Tensioner
An adjustable component used to tighten the horizontal lifeline cable to the correct operating tension. Also referred to as a “turnbuckle” or “inline tensioner.”

Carabiner
A locking or non-locking metal connector used to attach components within the fall protection system. All carabiners must be rated and compatible with the Safety Pole system.

Competent Person
An individual who is capable of identifying existing and predictable hazards in the surroundings or working conditions and has authorization to take prompt corrective measures. Required for system inspection and verification.

D-Ring
A metal ring used as a connection point for lanyards or safety harnesses. Found on harnesses and may also be present on system anchor points.

Deployment
The activation of a shock absorber due to fall arrest force. Any deployed device must be removed from service immediately.

Fall Arrest
The function of stopping a person who is falling. The Safety Pole system provides fall arrest protection when used with compatible personal fall arrest equipment.

Fall Clearance
The minimum vertical distance required below the anchorage point to safely arrest a fall without the user contacting a lower level or obstruction.

Fall Protection System
An integrated assembly of components including the Safety Pole, anchorage hardware, lifeline, lanyard, and harness. Designed to protect personnel from fall hazards.

Harness (Full-Body)
A body-worn device made of webbing, straps, and buckles designed to distribute fall forces across the shoulders, thighs, and pelvis during arrest.

Hardware (Rated)
All mechanical fittings used in the system (e.g., bolts, connectors) must be rated for use in fall protection applications and compliant with manufacturer specifications.

Horizontal Lifeline (HLL)
A tensioned cable or webbing span installed horizontally between two anchor points. Used to provide fall protection mobility for personnel working at height.

Inspection (Formal)
A documented evaluation of all system components, performed by a Competent Person, at least every 6 months or after exposure to damaging conditions.

Inspection (Pre-Use)
A visual check conducted by the user before each use of the system, verifying structural integrity, cleanliness, and functionality.

Lanyard
A flexible line of rope, wire rope, or strap that connects the user’s harness to an anchorage point or lifeline system.

Legible Markings
Product labels, serial numbers, and instructional decals that must remain visible and readable throughout the service life of the component.

Maintenance
The routine cleaning, tightening, and minor adjustment of system components to preserve proper function and ensure safe operation.

Personal Fall Arrest System (PFAS)
A complete set of fall protection equipment including a full-body harness, connector (e.g., lanyard), and anchorage. Used in conjunction with the Safety Pole system.

Rebar Cage (for Concrete Pour)
A steel reinforcing structure embedded in concrete to provide structural support for the base plate or anchor system during new construction.

Retighten
The act of reapplying torque or securement force to system components (e.g., cable clamps) as part of inspection or after-use procedure.

Shock Absorber
A device integrated into the fall protection system to reduce arresting forces experienced by the user in the event of a fall.

Snap Hook
A self-closing, locking connector used to attach PFAS components. Must be compatible with anchor points and rated for fall arrest loads.

Substrate
The underlying surface or structure (e.g., concrete slab, steel decking) to which the Safety Pole base is mounted.

System Removal (Post-Use)
The safe dismantling of temporary system components following work completion, including disconnection of lifelines and hardware recovery.

Tagline
A non-load-bearing line used to guide or control components during raising or lowering. Not part of the fall protection system.

Temporary Use Assembly
An installation method that allows for the Safety Pole system to be removed and reused on different job sites. Components must be reverified after each use.

Torque Specification
The manufacturer's designated force value required to properly tighten hardware or components such as bolts or cable clamps.

Turnbuckle
A mechanical device used to adjust tension in cables. Often referred to as a cable tensioner in the HLL assembly.

Verification (Installation)
The process of confirming that all components are correctly assembled, tensioned, anchored, and ready for use before personnel engage with the system.

Visual Indicator
Any feature or label designed to show the status of a component, such as shock absorber deployment or lifeline tension state.

APPENDIX B: INSPECTION FORMS

The following inspection forms are provided to ensure ongoing safety, compliance, and proper maintenance of the Safety Pole system. These checklists must be completed by qualified personnel in accordance with OSHA guidelines and the manufacturer's requirements. All inspection results should be documented and retained by the system administrator or facilities supervisor.

This appendix includes formatted forms intended both for reference and active use in the field. Together, they support a comprehensive inspection and maintenance program across the lifespan of the system. The included forms are:

- Daily / Pre-Use Inspection Checklist – for routine checks before each use.
- Monthly Inspection Log – for scheduled reviews of system condition and component integrity.
- Annual Inspection Record – for formal review and recertification by a qualified person.
- Deficiency & Removal Form – for documenting non-compliant components or required removal from service.

These forms help maintain a consistent record of system health, assist with audit readiness, and promote safe operation on every site.

Daily/Pre-Use Inspection Checklist

Inspection Item	Pass / Fail
Visual inspection of pole integrity (no damage, deformation, or corrosion)	
Check for tight and secure base plate attachment	
Inspect fall protection attachment point for wear or deformation	
Confirm labels are legible and affixed	
Ensure work area around pole is free of obstruction	
User’s full-body harness and SRL are compatible and undamaged	
Lanyard and hardware are free of sharp edges or cracks	

Inspector Name: _____ Date: _____ Signature: _____

Monthly Inspection Log

Inspection Item	Condition (Pass / Fail)	Inspector Name	Date
Check fasteners, bolts, and base hardware			
Inspect anchor plate and mounting surface			
Verify structural integrity of pole sections and connections			
Confirm absence of corrosion or mechanical wear			
Check SRL retraction and braking function			
Inspect compatibility and proper function of accessories			

Annual Inspection Record

This section must be completed by a qualified or competent person other than the system user. Inspection should be conducted at least once every twelve months.

Component	Condition (Pass / Fail)	Inspector Name & Qualifications	Date
Pole assembly structure			
Base and anchor system			
Weld points and hardware			
SRL (Self-Retracting Lifeline) and connectors			
Labeling and compliance markings			
Inspection history log presence			
Other Observations			

Deficiency & Removal Form

If any part of the system fails inspection or is found to be unsafe for use, complete this form and tag the equipment as ‘DO NOT USE’. Immediately remove the system from service until corrective action is taken.

Component	Observed Issue	Action Taken	Removed From Service (Y/N)

Filed by: _____ Department: _____ Date: _____

APPENDIX C: MANUFACTURER INFORMATION & CONTACT GUIDELINES

For all matters related to installation support, system inspection, maintenance consultation, component replacement, warranty claims, or return authorization, contact the manufacturer directly:

Safety Pole, Inc.
Camarillo, CA 93010

Phone: 805-233-0428
Email: support@safetypole.com
Website: www.safetypole.com

When to Contact Safety Pole

If you have questions regarding the safe installation or anchorage of the Safety Pole system or any compatible components.

☑ If any part of the system is damaged, worn, deformed, or fails a required inspection.

☑ To request replacement parts, authorized accessories, or to confirm compatibility with other systems.

☑ When submitting a warranty claim or requesting an RMA (Return Merchandise Authorization).

☑ For clarification on system specifications, user qualifications, or proper usage parameters.

☑ To obtain the latest versions of this manual or technical bulletins issued by Safety Pole.

☑ To inquire about authorized installers or training programs.

Why Direct Contact Is Critical

Because fall protection is safety-critical, it is essential that users only rely on manufacturer-verified guidance. Improper use, unauthorized alterations, or failure to report suspected issues may void the warranty and compromise user safety. Only Safety Pole, Inc. is authorized to approve system modifications, provide technical rulings, or confirm regulatory compliance of installed systems.

APPENDIX D – OSHA COMPLIANCE AND REGULATORY REFERENCE

The Safety Pole system is designed and manufactured in accordance with recognized standards for personal fall arrest systems, and is intended to support compliance with applicable workplace safety regulations as outlined by the Occupational Safety and Health Administration (OSHA). This appendix summarizes key regulatory references mentioned within this manual and their relevance to the correct installation and use of the Safety Pole.

1. Applicable OSHA Standards

Safety Pole references the following OSHA standards as applicable to the use and requirements of fall arrest systems in construction and general industry settings:

OSHA 29 CFR 1926.502(d) – Fall Protection Systems Criteria and Practices
This section outlines the required strength, performance, and anchorage conditions for personal fall arrest systems. Safety Pole's anchorage system is designed to exceed the minimum 5,000 lb. load requirement per attached worker.

OSHA 29 CFR 1910.140 – Personal Fall Protection Systems
For general industry, this standard establishes requirements for system integrity, connectors, and use guidelines. It also emphasizes proper inspection, maintenance, and use of harnesses and lanyards—conditions directly addressed in Safety Pole usage protocol.

OSHA 29 CFR 1926 Subpart M – Fall Protection
Governs all aspects of fall protection for employees in the construction industry, including controlled access zones, training requirements, and use of fall arrest equipment such as the Safety Pole system.

2. ANSI Reference

While not directly regulated by OSHA, the following ANSI standard is cited as a recognized best-practice benchmark by the manufacturer:

ANSI Z359.1 – Safety Requirements for Personal Fall Arrest Systems, Subsystems, and Components
Safety Pole's design and testing process aligns with ANSI criteria for dynamic load handling, connector strength, and anchorage integrity.

3. Inspection and Use Requirements

Per Safety Pole's installation and user guidance, and in alignment with OSHA regulations:

- Personal fall arrest systems must be inspected before each use.
- Defective or worn equipment (lanyards, harnesses, connectors) must be removed from service immediately.
- Users must ensure that the Safety Pole is securely mounted to a suitable surface and tested prior to use.
- Fall protection users must be trained in accordance with 29 CFR 1926.503.

4. Compliance Statement

The Safety Pole system is intended to assist employers and safety professionals in meeting OSHA's fall protection mandates when installed and used in accordance with the instructions provided in this manual. It is not, in and of itself, a guarantee of regulatory compliance—users are responsible for ensuring that their fall protection program as a whole meets all applicable regulations.