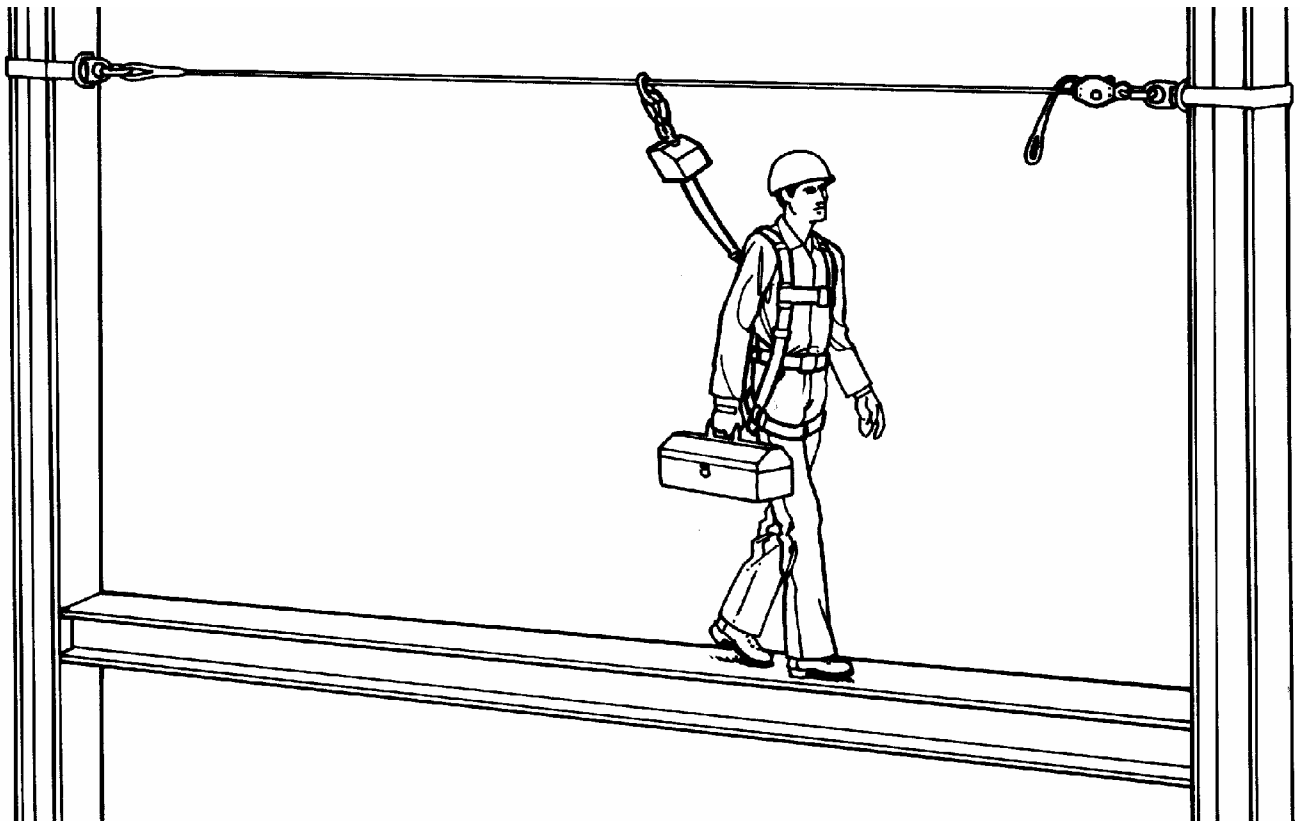


GUARDIAN[®]

FALL PROTECTION

USER'S INSTRUCTION MANUAL FOR THE INSTALLATION,
OPERATION & MAINTENANCE OF THE
GUARDIAN™ 04630 TEMPORARY HORIZONTAL LIFELINE
SYSTEM



WARNING

This is a design compatible component for a comprehensive Guardian™ Personal Fall Arrest or Fall Restraint System. Each component includes an instruction manual. These instructions must be provided to the user of this equipment prior to use. **AS A USER, YOU MUST READ, UNDERSTAND AND FOLLOW THE MANUFACTURER'S INSTRUCTIONS, LABELS AND WARNINGS** for each component part of the complete system before using it. If you do not understand the Instruction, Labels and Warnings for the use and maintenance of this component, have them explained to you. **ANY MISUSE OF THIS COMPONENT, ANY ALTERATION OR MODIFICATION OF IT, OR FAILURE TO PROPERLY FOLLOW THESE USER'S INSTRUCTIONS, MAY RESULT IN SERIOUS INJURY OR DEATH.**

If any additional information is required to use this product, it will be supplied with this product. Fall arrest equipment used in conjunction with the Guardian™ Temporary Horizontal Lifeline System will also be supplied with instructions.

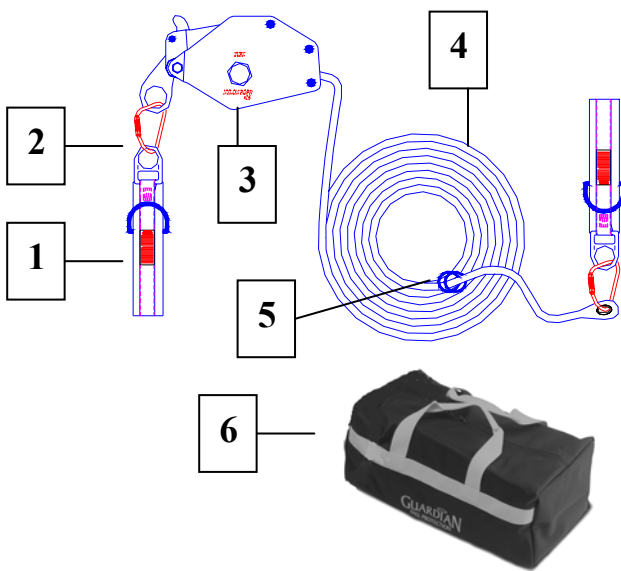
1.0 PRODUCT DESCRIPTION AND APPLICATIONS

Guardian™ Part Number:

04630: 100' Temporary Horizontal Lifeline System, 2 users maximum

The Guardian™ Temporary Horizontal Lifeline System is designed to be used in applications where a fall hazard exists, but there is no means of arresting a fall. The Temporary Horizontal Lifeline System attaches to stationary anchorage points, I Beam Clamps, Pipe Rack Stanchion Systems or Steel I-Beam Post Systems.

This system has been designed and tested to be used with Guardian™ Personal Fall Arrest Equipment (PFAS) only. It has been designed for personal fall arrest use only. It is not intended for other applications. It is not intended to be used for suspending equipment. The 04630 Temporary Horizontal Lifeline System is an engineered system, and has been designed according to the application.



1. Anchor sling (2)
2. Self-locking carabiner (2)
3. Horizontal line tensioning device
4. Polyester rope lifeline
5. O-Rings (2)
6. Storage bag

2.0 PRODUCT SPECIFICATIONS

Lifeline

Diameter	5/8"
Weight	13.1 lbs. per 100 ft.
Material of Construction	12 Strand Polyester Fiber Rope
Average Breaking Strength	17,100 lbs.
Specific Gravity	1.38
Elongation	1.4% stretch at 10% of Break Strength 2.3% stretch at 20% of Break Strength 3% stretch at 30% of Break Strength
Chemical Resistance	High resistance to acids

Line Tensioner

Material of Construction	Steel with corrosion resistant finish
Minimum Breaking Strength	5,600 lbs.

Anchor Slings

Material of Construction:	
Web	Polyester
Small D-Ring	Drop forged – alloy steel. Standard finish, cadmium.
Large D-Ring	Plating: Zinc to ASTM B-663, Zinc Spec. QQZ, Class 2, 0.0005 + Silica Seal.
Webbing - Min. Tensile Strength	6,000 lbs.
D-Ring – Min. Tensile Strength	5,000 lbs.
Proof Loaded	100% up to 3,600 lbs.

Carabiners

Material of Construction	Heat treated alloy steel. Finish is plated to BS1706-FE-ZN5C.
Min. Breaking Load	11,000 lbs.
Proof Loaded	100% to 3,600 lbs.

O-Rings

Inside Diameter	3"
Outside Diameter	3-3/4"
Material of Construction	Drop forged alloy steel.
Min. Tensile Strength	5,000 lbs.
Proof Loaded	100% up to 3,600 lbs.

3.0 SYSTEM REQUIREMENTS

Personal Fall Arrest System Components

The Guardian™ Horizontal Lifeline System has been designed to be used with approved Guardian™ components and sub-systems only. Non-approved components and sub-systems may be incompatible and could affect the overall system. These components must meet all applicable OSHA and ANSI standards. A full body harness like those manufactured by Guardian™ must be used with this system.

System Components

Connectors (snap hooks, carabiners, D-rings) used to attach to the system O-ring(s) must support a minimum of 5,000 lbs. Only use connectors that are compatible in shape, size, and strength. Failure to do so may cause accidental roll-out. DO NOT use non-locking connectors.

Structural Anchor Points

Anchor points must be stiff and capable of supporting a minimum of 3,600 lbs. Anchor points must also be able to support 3,600 lbs. in all directions of a potential fall.

Anchorage Connectors

Connectors must be capable of holding 5,000 lbs. without breaking. Connectors must be compatible with the connection point.

Sub-System Connections

A sub-system connection is the component used to attach the users harness to the horizontal lifeline. Sub-system connections typically are self-retracting lifelines and lanyards.

Limitations of System

System Capacity – The Guardian™ 04630 Temporary Horizontal Lifeline System has a maximum capacity of two workers. There must also be adequate clearance beneath the walking/working surface (see section titled “Clearance” below) for the system to function properly. The maximum worker’s weight, including tools, cannot exceed 310 lbs. each. Consult your Guardian sales representative if you have any questions concerning your application.

Corrosion – Harsh environments can cause corrosion of metal parts. The Temporary Horizontal Lifeline System should not be left in corrosive environments for extended periods of time. Additional inspections may be necessary to verify that the lifeline and components are in good working condition.

Electrical Hazards – User should always use extreme caution when working near electrical sources.

Heat – Do not use this device in extremely high temperatures. When performing any type of metal work, such as welding, cover fall arrest equipment.

Moving Machinery – If it is necessary to work above moving machinery, maintain a safe distance between the moving parts and yourself, clothing, and personal protective equipment.

Sharp Edges – Fall arrest equipment should always be protected from sharp edges. Sharp or abrasive edges can cause excessive wear to equipment. If it is necessary to work around these types of surfaces, always use a wear pad or barrier.

Clearance – There must be sufficient clearance beneath the structure to ensure that workers do not contact an obstruction below. **See chart on following page.** Contact your Guardian™ representative for additional information.

Swing Falls – It is important to work as close as possible under the horizontal lifeline to minimize swing fall hazards. A swing fall hazard is a result of a worker walking and/or working too far away from the horizontal lifeline. In the event of a fall, a worker that is not close to the horizontal lifeline will swing in a pendulum like motion and could hit an obstruction, causing a serious injury. To minimize this type of hazard, work as closely as possible to the horizontal lifeline and carefully evaluate any obstructions below the working surface.

Required Clearance from Working Surface to Next Obstruction with Guardian 6' Shock Absorbing Lanyard with One (1) or Two (2) Workers on Line		
Span Distance (in feet)	Required Clearance Below Working Level for One (1) Worker (in feet)	Required Clearance Below Working Level for Two (2) Workers (in feet)
1-10	15	16
11-20	16	17.5
21-30	17	19.5
31-40	18	21.5
41-50	20	24
51-60	21	26
61-70	23	28
71-80	25	30
81-90	27	32
91-100	29	34

Span Distance (in feet)	Required Clearance (in feet) from Working Surface to Next Obstruction with Guardian 8' or 11' Web Self Retracting Lifeline with Two (2) Workers on Line
1-40	10.5
41-60	12.5
61-100	18.5

The chart above is based on the following factors:

- Vertical displacement of horizontal lifeline
- Displacement of harness D-ring - 1 foot
- Safety margin – 2 feet
- Maximum free fall distance - 6 feet
- Deployment of shock absorber - 3.5 feet
- Horizontal lifeline is mounted above the workers head

4.0 IMPORTANT DO'S AND DON'TS

NOTE: The components, materials and anchorage of a personal fall arrest system must be selected by a Competent Person to match the system's application, and workplace hazards and environment.

DO

DON'T

Use this device only with compatible components from Guardian™.	Repair or modify this device.
Inspect equipment before each use.	Ignore warnings issued by Fall Protection Manufacture.
Store equipment in a safe, dry area.	Modify or repair Fall Arrest equipment. Contact manufacture for instructions.
Keep all literature and instructions in a safe place for easy, quick reference.	Use this equipment unless you have been fully trained by a competent person and fully understand how to use this equipment.
Keep all inspection documents updated.	Use this device if it has been exposed to corrosion, chemicals, excessive heat, flames, electrical charge, or shows signs of any physical damage or deformation.
Keep all labels on fall protection equipment readable.	Use this device if your total combined weight (body, clothing, tools, etc.) exceeds 310 lbs.
Use extreme caution when rigging this equipment.	Use anchorage points unless they have been designed for fall protection.
Plan for a rescue if a worker becomes unconscious or incapacitated and falls.	Rely on the sound of a closing snap hook. Visually inspect it to ensure a proper attachment.
Call Guardian™ at (800) 466-6385 if the device is damaged or does not function according to the correct operation explained in section 3 of this manual.	Use this system if you are pregnant, a minor, or have reduced tolerance to fall forces by reason of age, physical or medical condition, or other pre-existing disorders.

DO NOT USE THIS DEVICE IF IT HAS BEEN USED AS PART OF A SYSTEM THAT HAS ARRESTED A FALL. IF IT HAS BEEN USED IN SUCH A SYSTEM, IT MUST BE REMOVED FROM SERVICE IMMEDIATELY AND SENT TO AN AUTHORIZED GUARDIAN SERVICE LOCATION FOR INSPECTION AND SERVICING.

5.0 FALL PROTECTION PLAN

As an employer, you must be aware of the factors which affect the safety of your workers before, during and after a fall. Having a Fall Protection Plan ready before work is the best way to ensure the ultimate safety and well-being of your employees.

Your Fall Protection Plan must include:

1. **Proper Anchorage:** A Properly selected anchorage point is critical to the success of a personal fall arrest system (PFAS). The anchorage point must be rigid and allow for a 2:1 safety factor.
2. **Free Fall Limitations:** Free fall distance must be taken into consideration when designing a fall protection system. Potential free falls may not exceed 6 ft. To reduce free fall distance, keep anchorage points above your working level.
Note: ANSI A10.14 requires personal fall arrest systems to be rigged so that the potential free fall is not greater than 5 ft.
3. **Fall Clearance Distance:** Measure the distance between the working level and the next obstruction. Then, design a system that will not allow a worker to come in contact with the obstruction or next level.
4. **Swing Falls:** If a worker is not directly under an anchorage point, a swing fall may result. To minimize this hazard, evaluate the entire situation, and plan accordingly for a safe clearance distance, or consider a horizontal lifeline. Contact Guardian for assistance.
5. **Rescue and evacuation plan.** You must provide a means of rescue and evacuation for workers should a fall occur.
6. **Immediately dispose of equipment which has been subjected to fall arrest forces.**

6.0 OPERATION AND INSTALLATION OF 04630, HLL100 TEMPORARY HORIZONTAL LIFELINE SYSTEM

One complete temporary horizontal lifeline system includes the following components:

Part Number	Description	Qty
01620	6 ft. Anchor Slings	2
-	Self-locking carabiners	2
-	Horizontal lifeline tensioning device	1
-	5/8" Rope Lifeline	100'
-	O-Rings	2
SOSBAG	Equipment Storage Bag	1

INSTALLATION OF LIFELINE TO SUPPORT STRUCTURE USING ANCHOR SLINGS

NOTE: Although anchor slings are included with system, self-locking carabiners may be attached directly to an approved anchor point.

1. Wrap polyester anchor sling around one support structure. Sling must be wrapped around column at least twice and fit up snugly against structure.
2. Take one self-locking carabiner and attach to smaller D-ring on anchor sling.
3. Wrap second anchor sling around opposite support structure. Repeat steps #1 and #2.
4. Connect thimbled end of lifeline to one of the anchor slings using a self-locking carabiner.
5. Tighten horizontal lifeline by pulling loose rope end at lifeline tensioner. Using a rod, tighten the lifeline by turning the nut clockwise until tensioner slips. Do not over tension lifeline. Lifeline is tensioned when turning the nut no longer pulls rope.
6. Once horizontal lifeline has been tensioned properly, push unfastening lever against tensioner. See Figure #1.

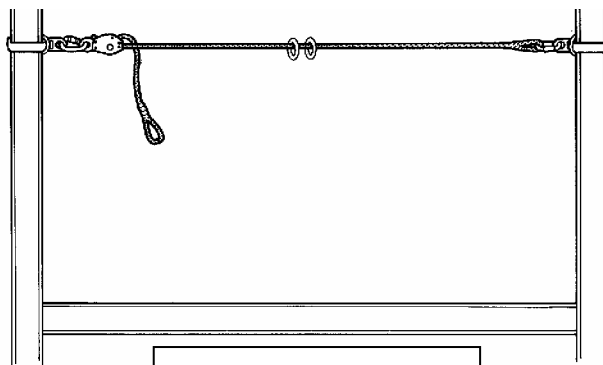


FIGURE #1

GUARDIAN FALL PROTECTION
26513 79th Ave. E.
Kent, WA 98032

Phone (800) 466-6385 Fax (800) 670-7892

7. Take excess horizontal lifeline and tie in knot close to tensioner.
8. Use only Guardian™ approved shock absorbing lanyards or self-retracting lifelines for attachment to horizontal lifeline. Shock absorbing lanyards cannot be directly attached to horizontal lifeline; they must be attached to the O-rings included with system. Each O-Ring is rated for one shock absorbing lanyard or self-retracting lifeline attachment.

DISMANTLING HORIZONTAL LIFELINE SYSTEM

With a screwdriver or connecting type bar, raise unfastening lever. Loosen lifeline by sliding through tensioner. Disconnect self locking carabiner from anchor sling D-Ring or anchorage point. Loosen anchor slings and remove from support structure.

IMPORTANT: If you fall, remove the horizontal lifeline system from service and immediately report incident to your supervisor or the safety department.

7.0 MAINTENANCE & STORAGE

1. Inspection must be carried out by a Competent Person trained in the inspection and replacement of the system. A record log of all servicing and inspection dates for this system should be maintained by the company safety officers at intervals of no less than twice per year. This system and all components must be withdrawn from service if subjected to fall arresting forces. Only original Guardian™ Replacement parts are approved for use in this device. Contact your Guardian™ distributor or Guardian™ Customer Service Department at (800) 466-6385 if you have any questions.
2. Maintenance and storage of equipment shall be conducted by the user's organization in accordance with Guardian™ instructions. Unique issues which may arise due to conditions of use shall be addressed with Guardian™.
3. Equipment which is in need of or scheduled for maintenance shall be tagged "DO NOT USE" and removed from service.
4. Hardware should be wiped clean with a rag to remove dirt and grease. Lubricate with a light oil to ensure good working order and protect against corrosion. Wipe off excessive amounts of oil to avoid the accumulation of dirt.
5. Store in a clean, dry area free from excessive heat, steam, sunlight, harmful fumes, corrosive agents and rodents.

WARNING: DO NOT USE FALL PROTECTION EQUIPMENT THAT HAS NOT BEEN MAINTAINED AND STORED PROPERLY.

8.0 INSPECTION

Inspection procedures for in field visual inspection:

1. The Guardian™ Systems shall be inspected by the user before each use and additionally by a Competent Person other than the user at intervals of no less than twice a year. If equipment is in a very harsh and/or corrosive environment, additional inspections may be necessary. Detailed inspections must be recorded. A comprehensive Inspection Checklist is included with all Guardian™ instructions.
2. If an inspection reveals defects that could affect the function of the Personal Protective Equipment, remove from service immediately and discard or all Protection equipment, damage, or inadequate maintenance of the system, the components affected shall be permanently removed from service to undergo adequate corrective maintenance before return to service.
3. Remove the system from service if:
 - The system has arrested a fall;
 - The system has not been inspected in the last six months;
 - The label(s) is missing or illegible;
 - Alteration of any components;
 - Inspection reveals excessive wear, cracks, or signs of deformation.

Only Guardian™ manufacturing personnel or entities authorized in writing by the manufacturer shall make repairs to the equipment. No unauthorized repairs or modifications are allowed.

Inspection Guidelines:

Every time the horizontal lifeline is used, inspect it for excessive wear or damage. If there are any defective conditions, remove immediately from service immediately.

Inspect all termination hardware and cables for cuts, abrasions or excessive wear. Excessive wear is a signal to retire cable from service and replace with new cable and hardware. NOTE: Remove the sources of damage away from the system.

Check clearance below the walking/working surface including obstructions in the path of a potential fall. If there are any sharp or dangerous obstructions below walking/working surface, remove from the path of a possible fall.

Maintenance:

1. Inspect all hardware for distortion and deformation. Check for visible cracks, excessive wear and tear, corrosion and chemical erosion. Also, remove hardware if there are sharp edges.

2. Inspect anchor points for physical damage, wear or corrosion that could affect their function in the event of a fall.
3. Inspect carabiners and snap hooks to ensure that gate operates properly.
4. Inspect all hardware for correct operation, broken or missing pieces, and loose or missing items.
5. Inspect all synthetic lifelines for cuts, fraying, fluffing, abrasion, melting and chemical wear.
6. Inspect synthetic harnesses and lanyards for the same items outlined in #5, in addition to inspecting for discoloration, damaged stitching, and exposed warning labels.
7. Inspect all labels to ensure that the Personal Fall Protection equipment has been inspected by a Competent Person. Labels must be readable at all times.

INSPECTION LOG

Manufacturer: _____

Model No: _____

Mfg. Date: _____

Part	Inspection Date	Inspector	Comments	Pass/Fail	Corrective Action Taken	Approved By
Anchor Slings						
Self-locking Carabiner						
Tensioner						
Lifeline						
O-Rings						