

GUARDIAN

FALL PROTECTION

PERFORMANCE SAFETY GEAR

Guardian Fall Protection Kent, WA
800-466-6385 www.guardianfall.com

GENERAL SYSTEM SELECTION CRITERIA: Selection of fall protection shall be made by a Competent Person. All fall protection equipment shall be purchased new and unused.

The equipment is designed for use as a part of a personal fall protection system. Components shall not be used for any other operation other than that which it has been designed and approved.

Fall Arrest Systems shall be designed to comply with OSHA or applicable state Fall Restraint systems shall be designed by a Qualified Person, and must be installed and used under the supervision of a competent person.

Consult a doctor if there is any reason to doubt a user's ability to withstand and safely absorb fall arrest forces. Age, fitness, and health conditions can seriously affect the worker should a fall occur. Pregnant women and minors should not use this equipment.



Guardian Harness Instructions

**DO NOT THROW AWAY THESE INSTRUCTIONS!
READ AND UNDERSTAND BEFORE USING EQUIPMENT!**

Thank you for purchasing a Guardian Harness. This manual covers the maintenance and use of Universal and Construction Harnesses including Edge and Seraph styles. This includes the following Guardian Part Numbers:

| | | | | | | |
|-------|-------|-------|-------|-------|-------|-------|
| 01101 | 01105 | 01110 | 01150 | 01155 | 01160 | 01165 |
| 01170 | 01175 | 01169 | 01171 | 01172 | 21140 | 21145 |
| 21146 | 21147 | 00900 | 00905 | 00920 | 11160 | 11162 |
| 11163 | 11164 | 11166 | 11165 | 11167 | 11170 | 11172 |
| 11173 | 11171 | | | | | |

WARNING!

DO NOT:

- Do not alter or misuse this equipment.
- Do not use combinations of components or subsystems that may affect or interfere with the safe, compatible function of each other.
- Do not expose the equipment to chemicals which may produce a harmful effect or degrade the equipment. Consult manufacturer in cases where doubt exists.
- Do not use the equipment around moving machinery or electrical hazards unless specifically designed for such use.
- Do not use the equipment around sharp edges or abrasive surfaces unless intended for such use.

TRAINING REQUIREMENTS: The employer shall provide a training program for each employee who might be exposed to fall hazards. The program shall enable each employee to recognize the hazards of falling and shall train each employee in the procedures to be followed in order to minimize these hazards. Relevant Federal, State, and local regulatory requirements, procedures, and standards shall also be a part of training.

The employer shall ensure that each employee has been trained, as necessary, by a Competent or Qualified Person in the nature of fall hazards in the work area, the correct erecting, maintaining, disassembling, and inspection of the fall protection systems being used, and the use of personal fall arrest systems.

RESCUE PLAN: The user is required to have a rescue plan and the means at hand to implement it when using the equipment. The plan shall be project specific. Employees shall be trained in self-rescue or alternate means shall be provided for prompt rescue in the event of a fall.

IF EQUIPMENT IS SUBJECTED TO A FALL: Remove the equipment from service immediately if it has been subjected to the forces of a fall arrest. Contact your distributor or Guardian about policies regarding replacement of Guardian components involved in a fall.

INSPECTION:

- Only the manufacturer of this equipment or persons or entities authorized in writing by the manufacturer shall make repairs to fall protection equipment.
- The date of first inspection should be recorded by the employer on the equipment, and any serial numbers shall be recorded on the Inspection Log.
- Formal inspections shall be made by either a Competent or Qualified Person on at least a semi-annual basis.

PRIOR TO EACH USE:

- Fall protection equipment shall be inspected by the user for defects, damage, or deterioration.
- Any suspected defective equipment shall be removed from service.
- If the manufacturer's label is not legible or is missing, the equipment shall be removed from service. Fall protection equipment shall be removed from service upon evidence of defects, damage, or deterioration, or upon expiration of the manufacturer's specified service limits, whichever comes first.

WARNING!

Consult with your doctor if there is reason to doubt your fitness to safely absorb the shock from a fall arrest. Age, fitness, and health conditions can seriously affect a worker's ability to withstand falls. Pregnant women or minors must not use any Guardian Fall Protection equipment.

MAINTENANCE, CLEANING, AND STORAGE: Repairs to equipment can be made only by a Guardian representative or person or entity authorized by Guardian. Contact Guardian for maintenance and repair. Cleaning after use is important for maintaining the safety and life of the equipment. Cleanse the equipment of all dirt, corrosives, and contaminants. If the equipment cannot simply be wiped clean use a mild soap and water. Rinse, wipe, and hang to dry. Store equipment where it cannot be affected by heat, light, excessive moisture, oil, chemicals, or other degrading elements.

DESCRIPTION OF PRODUCT:

Guardian Harnesses are designed and tested to comply with applicable OSHA and ANSI standards for fall protection equipment. When used as a component in a personal fall arrest system, or a personal restraint system, the Guardian harnesses provide workers with the full body harness system designed to allow the body to help absorb the impacts of a fall should one occur.

PRODUCT APPLICATION INFORMATION:

The Guardian harnesses are designed to be used as body wear for personal fall arrest, restraint, work positioning, or suspension systems. Do not use the fall protection harness for any purpose that is not related to occupational safety and fall protection systems.

- **PERSONAL FALL ARREST:** Means the product is used as a component of a personal fall arrest system to protect the user in the event of a fall. PFAS typically include a full body harness and a connecting component (energy absorbing lanyard). Maximum permissible free fall is six feet.
- **RESTRAINT:** Means the product is used as a component of a restraint system to prevent the user from reaching a fall hazard. Restraint systems typically include a full body harness and a lanyard or restraint line. **NO VERTICAL FREE FALL IS PERMITTED**
- **WORK POSITIONING:** Means the product is used as a component of a work positioning system to support the user at a work position. Work positioning systems typically include a full body harness, positioning lanyard, and a back-up personal fall arrest system. Maximum permissible free fall is two feet.
- **RESCUE:** This product can be used as a full body harness component of a rescue system. See the specific fall protection plan for harness design qualifications.
- **EXTENDED SUSPENSION:** A full body harness is not designed for extended suspension applications unless some form of specifically designed seat is used. A seat board, boatswain's chair, or seat sling is recommended.

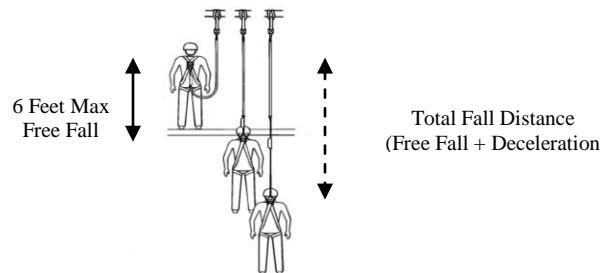
LIMITATIONS:

Consider the following application limitations before using this equipment.

- **Capacity:** The anchorage connectors are designed for use by persons with a combined weight (clothing, tools, etc.) of no more than 310lbs. No more than one personal protective system may be connected at one time.
- **Free Fall:** Personal fall arrest systems (PFAS) used with this equipment must be rigged to limit the free fall to six feet as called out in ANSI Z359.1. Only qualified and trained personnel, on the proper use of fall protection such as this anchor, are allowed to use this product. **Restraint systems** must be rigged that no vertical free fall is possible. **Work positioning systems** must be rigged so that free fall is limited to two feet or less. **Rescue systems** must be rigged so that no vertical free fall is possible.
- **Fall Clearance:** There must be sufficient clearance below the user to arrest a fall before the user strikes the ground or other obstruction. The clearance required is dependent on some or all of the following factors. A hazard assessment by a trained and competent person is recommended before any work is started that would include the use of fall protection.

Consider When Calculating Distance:

- Deceleration Distance
- Movement of harness attachment element (D-ring)
- Free Fall Distance
- Worker Height (how tall the worker is could affect the free fall distance)
- Elevation of Anchorage Connector
- Connecting Subsystems Length

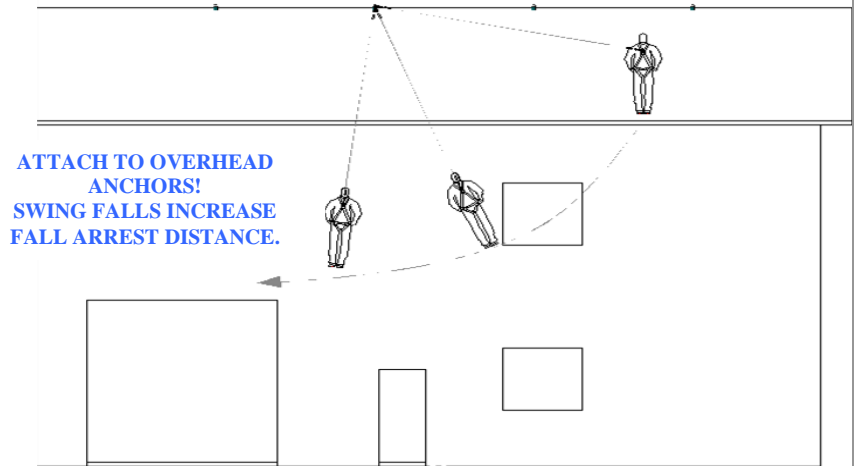


APPLICABLE STANDARDS:

Refer to potential applicable standards. Standards might include OSHA regulations depending on the type of work, and also might include state regulations if applicable. Consult regulatory agencies for more information on personal fall arrest systems and associated components. This product is designed to comply with OSHA and ANSI Z359.1 standards when used properly, and in accordance with manufacturer's instructions.

LIMITATIONS CONTINUED:

- **Swing Falls:** Swing falls occur when the anchorage point is not directly above the point where a fall occurs. The force of striking an object in a swing fall may cause serious injury or death. Minimize the risk of swing falls by working as close to the anchorage point as possible. Do not permit a swing fall if injury could occur. **Swing falls will significantly increase the clearance required when a self retracting lifeline or other variable length connecting system is used.**
- **Potential Environmental Hazards:** Use of fall protection equipment in areas with environmental hazards may require additional precautions to prevent injury to the user or damage to the equipment. Hazards may include but are not limited to: chemicals, corrosive environments, high voltage power lines, gases, moving machinery, and sharp edges.



SYSTEM REQUIREMENTS:

- **Compatibility of Components:** Guardian Fall Protection equipment is designed to be used with Guardian approved components. Please contact Guardian if you have a question regarding compatibility. Making substitutions without approval from Guardian Fall Protection may lead to injuries and or death by compromising the safety and reliability of the complete system. A Qualified person can make a determination on compatibility of equipment from different manufacturers. If in doubt, please contact Guardian Fall Protection for clarification.
- **Compatibility of Connectors:** Connectors (D-rings, hooks, carabiners) must be capable of supporting at least 5,000 lbs. (22kN). Do not use equipment that is not compatible. Non-compatible connectors may unintentionally disengage. Self locking snap hooks and carabiners are required by ANSI and OSHA. Connectors must be compatible in size, shape, and strength.
- **Making Connections:** Only use self-locking snap hooks and carabiners with any Guardian Fall Protection equipment. Do not use equipment that is not compatible. If you have any questions on compatibility, please call Guardian Fall Protection at 800.466.6385.

WARNING!

Large throat opening snap hooks should not be connected to standard size D-rings or similar objects which will result in a load on the gate if the hook or D-ring twists or rotates. Large throat snap hooks are designed for use on fixed structural elements such as rebar or cross members that are not shaped in a way that can capture the gate of the hook.

PERSONAL FALL ARREST INFORMATION:

- **Personal Fall Arrest System (PFAS):** Personal fall arrest systems used with this equipment must meet applicable state, federal, OSHA, and ANSI requirements. A full body harness must be worn when this equipment is used as a component of a personal fall arrest system. As required by OSHA, the personal fall arrest system must be capable of arresting the user's fall with a maximum arresting force of 1,800 lbs., and limit the free fall to six feet or less.

WARNING!

If overhead tie off is not feasible, and an approved system has the potential for a free fall greater than six feet, and up to a maximum of ten feet, Guardian Fall Protection recommends using a personal fall arrest system incorporating a Guardian Fall Protection Heavy Duty Shock Absorbing Lanyard. The Heavy Duty Lanyard is designed to keep fall arresting forces below the required standard of 1,800 lbs. Standard type lanyards will generate impact fall forces in excess of the legal requirement.

ANCHORAGE STRENGTH REQUIREMENT:

The anchorage strength required is dependent on the application. Following are anchorage strength requirements for specific applications. Ensure that any anchorage point used in a personal fall protection system meet the following requirements.

- **Fall Arrest:** The structure to which the anchorage connector is attached must sustain static loads applied in the directions permitted by the fall arrest system of at least 3,600lbs. with certification of a qualified person, or 5,000lbs. without certification. Refer to OSHA and ANSI for specific definition. This anchor is to be used by one worker only. Do not tie off equipment. Anchorages used for attachment of a personal fall arrest system shall be independent of any anchorage being used to support or suspend platforms.
- **Restraint:** The structure to which the anchor point is attached must sustain static loads applied in the directions permitted by the restraint system of at least 3,000lbs. When more than one restraint system is attached to an anchorage, the strengths stated above must be multiplied by the number of restraint system attached to the anchorage.
- **Work Positioning:** The structure to which the anchor point is attached must sustain static loads applied in the directions permitted by the work positioning system of at least 3,000lbs., or twice the potential impact load, whichever is greater. When more than one work positioning system is attached to an anchorage, the strengths stated above must be multiplied by the number of work positioning systems attached to the anchorage.

INSPECTION OF GUARDIAN HARNESES:

WARNING!

If inspection reveals an unsafe or defective condition, remove the product from service and destroy it immediately.

- **Before each use of this equipment inspect it according to the following guidelines:**
A formal inspection of fall protection products/components must be performed at least every six months by a competent person other than the user. The frequency of formal inspections should be based on conditions of use or exposure. Record the inspection results in the inspection and maintenance log at the end of this manual.

Inspecting the Harness:

- Step 1: Inspect harness components for damage, distortion, cracks, worn parts, corrosion, or wear that might affect integrity.
- Step 2: Inspect webbing components for cuts, broken fibers, tears, abrasions, mold, burns, or discoloration. Inspect stitching for possible breaks and identify any load indicators that might have deployed to indicate a fall. Some harnesses feature webbing that is protected by material sheaths or coverings. These coverings should be folded back and the webbing underneath checked for integrity.
- Step 3: Inspect webbing retainers, buckles, grommets, and plastic web excess keepers for integrity and function.
- Step 4: Inspect labels for legibility. If there is no label attached, contact manufacturer.
- Step 5: Inspect impact indicators (if present on back of harness) to determine if product has been impacted in a fall. The indicator will expose threads and a written warning on the tag will be visible if the product has been involved in a fall. If the impact indicator has been deployed, remove the product from service.
- Step 6: Inspect the system components according to the manufacturer's instructions.
- Step 7: Record the inspection results in the inspection log at the end of this manual.

WARNING!

PLAN THE FALL PROTECTION SYSTEM:

Before installation plan your system. Consider all factors that will affect your safety during use of this equipment. The following list gives important points to consider when planning your system:

- **Anchorage:** Select a rigid anchorage capable of supporting the loads no less than 5,000 lbs. per worker attached.
- **Sharp Edges:** Avoid working where system components may be in contact with, or abrade against, unprotected sharp edges.
- **After a Fall:** Components which have been subjected to the forces of arresting a fall must be removed from service and destroyed.
- **Rescue:** The employer must have a rescue plan when using this equipment. The employer must have the ability to perform a rescue quickly and safely.

WARNING!

IMPROPER FIT, ADJUSTMENTS, and ATTACHMENTS CAN RESULT IN SERIOUS INJURY OR DEATH

The proper fit and attachment of full body harnesses is critical for reducing the likelihood of body damage or system failure when using a compliant fall protection system. Users must be trained and knowledgeable in the proper fit, proper hardware coupling, and proper harness selection.

- Harness sizing features (chest straps, shoulder straps, leg straps, and any other harness adjustment) must be fitted to each individual user.
- Harness connections must be made in a compatible manner. Buckles must be positively engaged and secured.
- Compatible connections must be made with connecting equipment (lanyards, lifelines, etc.) only at approved points on the harness. Never attach snaphooks directly to harness webbing unless specifically designed for such applications (i.e. web loops substituted for D-rings on some model harnesses).
- Dorsal D-rings must be adjusted and situated between the user's shoulder blades. Chest straps must be located across the chest. Dorsal D-rings may be readjusted by sliding the crossing placard up or down on the webbing to move the D-ring.

ADJUSTING THE HARNESS:

The following requirements outline adjustment mechanisms and locations. Adjustments must allow for a snug, but comfortable fit.

ADJUSTMENT MECHANISMS

Guardian harness models may feature one or more of the following adjustment mechanisms.

1) Pass-Thru Buckles

Adjust Pass-Thru Buckles by sliding the small metal connection through the slot on the larger metal receiver connection. The buckles will lay flat against one another, creating enough friction to prohibit the webbing from moving.



2) Tongue Buckles

Tongue Buckles utilize a grommet and framed tongue style receiver to lock the grommet in place to prohibit slippage.



3) Quick Adjust Friction Buckles

Quick Adjust Friction Buckles incorporate textured rollers mounted inside a square metal frame. Friction on the roller portion of the buckle prohibits web slippage while allowing easy adjustment by positioning the roller buckle at a 90 degree angle to the webbing.

4) Sliding Bar Adjusters

Sliding Bar Adjusters allow adjustments to shoulder strap areas by feeding webbing to loosen or tighten depending on the up or down direction of the buckle. Sliding the buckle down on the shoulder strap tightens the straps on the wearer, while moving the buckle up on the strap loosens the shoulder strap webbing.

5) Quick Connect Buckles

Quick Connect Buckles are activated by engaging two release levers simultaneously to release the male piece from the female receiver. Adjustments are made by feeding webbing through the male end using a friction style buckle.



ADJUSTMENT LOCATIONS BY HARNESS

The following Guardian harnesses incorporate adjustment mechanisms at the following locations.

HUV Basic Style Harnesses:

Chest Strap Adjustment, Shoulder Strap Adjustments, Leg Strap Adjustments

Construction Style Harnesses:

Chest Strap Adjustment, Shoulder Strap Adjustments, Leg Strap Adjustments, Waist Strap Adjustments

Seraph HUV Style Harnesses:

Chest Strap Adjustment, Shoulder Strap Adjustments, Leg Strap Adjustments

Seraph Construction Style Harnesses:

Chest Strap Adjustment, Shoulder Strap Adjustments, Leg Strap Adjustments, Waist Strap Adjustments

Edge Series HUV Harnesses:

Chest Strap Adjustments, Shoulder Strap Adjustments, Leg Strap Adjustments

Edge Series Construction Harnesses:

Chest Strap Adjustments, Shoulder Strap Adjustments, Leg Strap Adjustments, Waist Strap Adjustments

Lineman Harnesses:

Chest Strap Adjustments, Shoulder Strap Adjustments, Leg Strap Adjustments, Waist Strap Adjustments

Front Loop Cross-Over Harnesses:

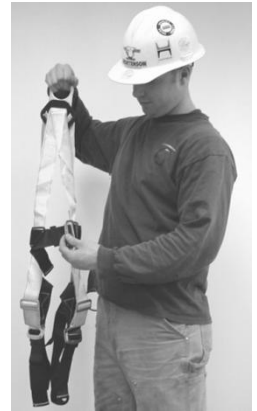
Shoulder Strap/Torso Adjustments, Leg Strap Adjustments

DONNING THE HARNESS:

Step 1: Inspect the equipment for cuts, abrasions, and structural or functional defects. Failure to follow proper methods of assembly and use can result in serious injury or death. Review inspection criteria above.

WARNING!

If inspection reveals an unsafe or defective condition, remove the harness from service and destroy it immediately.



Step 2: Located back D-ring and lift up the harness. Make sure that the straps are not twisted and that all buckles are unfastened.

- The back (dorsal) D-ring is located where the back webbing straps cross each other and is held in place by a placard.
- At this point, no adjustments are made.
- This stage allows users to identify any twisted webbing or disoriented straps.



Step 3: Slip the harness over your shoulders like a jacket. The dorsal D-ring (with the plastic placard) should be between your shoulder blades.

- Some steps may require initial help from another person.
- Ensure that all straps are oriented correctly, with no twisting or inversion.
- Allow leg straps to hang (do not fasten yet). This step is another opportunity to ensure that no straps or webbing are twisted.



Step 4: Buckle the leg straps hanging behind you into their front connector on the same side. Adjust to a tight, but comfortable fit around the thigh.

- A snug fit provides protection during a fall.
- Leg straps should not dangle or hang loose. Loose straps will increase likelihood of injury.
- Leg straps may be Pass-Thru style, Tongue Buckle Style, or Quick Connect Style.

Step 5: Buckle and adjust the chest strap. Chest strap should be located approximately 6 inches from the top of the shoulders at the lower chest level.

- Chest buckles must not hang below the chest (except for Front Loop Crossover styles)
- Chest buckles should be adjusted for comfortable movement. Excess webbing should be stowed using provided web keepers.
- Chest buckles may be Pass-Thru style or Quick Connect style.



Step 6: Adjust the shoulder straps (left and right side) to a comfortable fit. Shoulder straps allow vertical adjustments for height.

- The shoulder straps should be adjusted to fit snugly in the shoulders with the leg straps already fastened.
- The sub-Pelvic (seat) strap should be located comfortably below the buttocks to properly distribute the force of a fall.
- Shoulder straps may be Quick Adjust Friction buckles or Sliding Bar Adjusters.
- For Front Loop Crossover Harnesses, adjust the Pass-Thru buckles below the front loop.



Step 7: For models with a waist belt, fasten the belt so that it fits comfortably around the waist.

- Waist belts are designed to provide support for work positioning.
- Waist belts incorporate features for utilizing tool bags.
- Waist belts may be Tongue Buckle style or Quick Connect Style.

TRAINING:

It is the responsibility of the user and the purchaser of this equipment to assure that they are familiar with these instructions, trained in the correct care and use of, and are aware of the operating characteristics, application limits, and the consequences of improper use of this equipment.

WARNING!

Training should be conducted without exposing anyone to a fall hazard. Training should be repeated on a periodic basis in accordance with your organizations policy and compliance with OSHA regulations.

HARNES ATTACHMENT LOCATIONS/APPLICATIONS:

DORSAL D-RING

- Designed for an approved Fall Arrest or Fall Restraint Attachments
- Example attachments include lanyards or vertical lifelines.



SIDE POSITIONING RINGS

- Designed for use in an approved Work Positioning system.
- Examples attachments include rebar chain assemblies and rebar web assemblies.



SHOULDER OR CHEST RETRIEVAL D-RINGS

- Designed for use in an approved retrieval system and situation.
- Example attachments include retrieval and rescue lanyard yokes.



FRONT CROSSOVER LOOP (FOR FRONT LOOP CROSSOVER HARNESSES)

- Designed for use in an approved ladder system and situation.
- Example attachments include cable grab attachments for ladder or vertical rail systems



CRADLE SEAT D-RINGS

- Designed for use in an approved work positioning system and situation.
- Example attachments include rebar chain assemblies or approved connecting assemblies.

