

Fall Protection Bag Kit Manuals

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Rescue Steps Instruction Manual

3002



SAFEWAZE

INSTRUCTIONS AND WARNING



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WARNING! Proper use of full arrest systems can help save lives and may reduce the potential for serious injuries from a fall. Users must read and understand the instructions provided with the product and be properly trained by their employer prior to use per OSHA 29 CFR 1910.66 and 1926.503. Failure to follow all warnings and safety instructions could result in serious injury or death. Consult a physician if there is any question about the user's ability to use the product. If you have questions, call SafeWaze.

-Before using a personal fall arrest system, employees must be trained in accordance with the requirements of OSHA 29 CFR 1910.66 in the safe use of the system and its components.
-Employees must have a rescue plan in place to implement it provides the prompt removal of employees in the event of a fall or assumes that employees are able to rescue themselves.
-Full arrest equipment MUST ONLY be used for the purpose for which it was designed and intended. NEVER use positioning equipment where a personal fall arrest system is required.
-Full arrest equipment must be inspected prior to each use for wear, damage and other deterioration, and defective components must be immediately removed from service, in accordance with the requirements of OSHA 29 CFR 1910.66 and 1926.502.
-Always use compatible components. SafeWaze products are designed for use with other SafeWaze products. Substitution or replacement with non-approved component combinations or substitutions may affect or interfere with the safe function of each other. Consult your SafeWaze representative for information on system design.
-OSHA 29 CFR 1910.66 and 1926.502 state that the full arrest system must be rigged such that the employee can neither fall more than six (6) feet, nor contact any lower level (see fig. 1). Always check for obstruction below the work area and ensure the full arrest is set.

-OSHA requires that the maximum arresting force imposed on the user's body must not exceed 1,800 pounds. See label for specific product rating. Use all full protection components are rated for the same total user working weight. Users must be within each component's capacity range.
-Assume working load is 310 pounds, including clothing and tools. NOTE: Heavyweight product maximum working load is 400 pounds.
-Extreme care must be taken when using equipment around moving machinery, electrical hazards, or near sharp edges and abrasive surfaces. DO NOT use near electrical lines or other overhead hazards.
-All synthetic material must be protected from heat, hot liquids, open flames or other heat sources. The use of heat resistant materials is recommended in these applications.
-Environmental hazards should be considered when selecting full protection equipment. Equipment must not be exposed to chemicals or harsh conditions that may produce a harmful effect.
-Anchorages used for attachment of personal fall arrest systems must be independent of any anchorage used to support or support additional loads.
-Anchor point must be kept above and to the rear of the D-ring. Never attach a ladder or other hooks onto a D-ring. Never attach multiple snap hooks to a D-ring.
-Anchorage must be used for its designed purpose. NOT for loading or lifting.
-Always work directly underneath the anchorage to avoid swing fall injuries (pendulum effect).
-NEVER allow slack in the cable/web or allow it to become entangled with other objects. DO NOT stand on the cable/web.
-Any equipment that has been subjected to a fall, or any part of the tool indicator warning is showing, must be immediately removed from service until a qualified person, as defined by OSHA 29 CFR 1926.20(a), use determine the need for authorized repair or disposal.
-Never allow an attempt to repair equipment. Repairs must be performed only by the equipment manufacturer or persons/companies authorized in writing by the manufacturer.

SYSTEM COMPONENTS AND TERMS

SafeWaze manufactures a wide variety of full protection equipment to arrest the fall of an employee. Construction work environments where an employee will operate at a height of at least ten (10) feet, or in general industry use (4) feet, a full arrest system is required. The complete full arrest system must be planned, installed, all components, calculation of fall clearance and swing fall, before using. Do not use or install equipment without proper training from a competent person as defined by OSHA 29 CFR 1926.20(a). These (3) primary components of a full arrest system are: anchorage, full body harness, and connecting device(s).
-Anchorage: Anchor points provide a secure connecting point, or terminating component, of a full arrest system. Anchorage connectors may be necessary between full arrest, work positioning or rescue system for the purpose of installing the system to the anchorage. OSHA states: Anchorage to which personal full arrest equipment is attached must be capable of supporting at least 5,000 pounds per employee attached, or must be designed, installed and used as part of a complete personal full arrest system, which includes a safety factor of at least two (2), under the supervision of a qualified person.
-Full Body Harness: A full body harness consists of a system of straps that is worn on or around the body, with means for attaching to other components of the full arrest system. NOTE: Body belts and positioning belts are used for positioning only, NOT FALLARREST.
-Connecting Devices: Connecting devices are the necessary connectors, comprised of all components, subsystems or both, between the anchorage or anchorage connector and the harness attachment point. Connecting devices serve to maintain forces on the body during the required levels (about five full energy) and provide the means of mechanical suspension of the fall person.
-Deceleration Device: A component such as an energy absorbing lanyard, personal energy absorber, self-retracting device, etc., which serves to dissipate energy and limit deceleration forces, which the system imposes on the body during a full arrest.
-Lanyard: A component consisting of a flexible rope, wire rope or strap, which typically has a connector at each end for connecting to the full body harness and to a full arrest energy absorber, anchorage or anchorage connector.
-Life Line: A component of a full arrest system consisting of a flexible line designed to hang either vertically (vertical lifeline), or for connection to anchorages or anchorage connectors in both ends or span horizontally (horizontal lifeline).
-Full Arrest System: The collection of equipment components that are configured to arrest a free fall.
-Positioning System: A full body harness or a body belt incorporated into a full body harness, or work positioning harness configured to allow an authorized person to be supported on an elevated vertical or inclined surface, such as a wall, and work with both hands free from body support.
-Tool Restraint System: A combination of anchorage, anchorage connector, lanyard (or other means of connection) and body support that limits travel in a manner that will not allow a NOT EXPOSED to a full arrest.
-Suspension/Controlled Descent System: A suspension-controlled descent system is utilized when the worker needs to descend for the purpose of accessing their work location. It is used in conjunction with a full arrest system as backup.

BEFORE EACH USE

Full arrest equipment must be inspected prior to each use for wear, damage and other deterioration, and defective components must be immediately removed from service, in accordance with the requirements of OSHA 29 CFR 1910.66 and 1926.502.

ANCHORAGE AND ANCHORAGE CONNECTORS

Prior to installing all full protection anchorages or anchorage connectors, carefully inspect the location in which the device will be secured. Anchorages and anchorage connectors must only be used on structural capable of supporting static loads applied in all directions permitted by the:-
-All arrest system of two (2) times the maximum arrest force with certification of a qualified person, or 5,000 pounds without certification;
-positioning system of two (2) times the foreseeable force with certification of a qualified person, or 2,000 pounds without certification;
-tool restraint system of two (2) times the foreseeable force with certification of a qualified person, or 1,000 pounds without certification.
The site must be visible and not cause damage to the equipment, due to sharp or jagged edges. Due to the dynamic nature of anchorages and anchorage connectors, please contact SafeWaze for any specific product information or in the event you have additional questions or concerns.

CROSS ARM STRAP AND SCAFFOLD ANCHORAGES

Cross arm straps and scaffold anchorages are installed as a restraint manner. Loop the largest strap or cable of the device over the beam, pipe or other anchor. Pass the small D-ring through large D-ring. Pull the device so that it is snug. Use the small D-ring as the connection point (see fig. 13).



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WARNING! The restraint may be exposed to a fall hazard during installation, hence, minimum safety equipment may be required during installation.
-Anchorage and anchorage connectors must be installed in situations that meet the anchorage strength requirements of OSHA 29 CFR 1910.66 and 1926.502.
-Never install multiple devices to a single anchor point, unless the connecting device are designed for such a connection.
-Always ensure an directly under the anchorage or anchorage connector as possible to limit the possibility of swing fall.
-Extreme care must be taken when using equipment around moving machinery, electrical hazards, or near sharp edges and abrasive surfaces.

LABELING

All stress-are snap labels are positioned similar to that indicated in fig. 16.

DOWNING AN SAFEWAZE FULL BODY HARNESS

-Pick-up harness by the full arrest attachment (see fig. 2, item D) and shake it to allow the straps to fall free of each other (see fig. 3). Make sure the leg straps are not buckled or twisted.

-Slide the shoulder straps over your arms as you would a jacket and into position on the shoulders. The full arrest attachment D-ring should be in the upper middle position of your back (see fig. 4). Check to be sure that the webbing is not twisted.
-At this time, attach the chest strap loosely to prevent the harness from slipping off of your shoulders (see fig. 2, item B) and fig. 5).
-If leg straps, attach the chest strap loosely to prevent the harness from slipping off of your shoulders (see fig. 2, item B) and fig. 5).
-The top of the leg straps will be hanging down behind you. Pull this portion between the legs, adjust to length and connect to the connecting buckle at the other end of the leg strap (see fig. 6). Make sure that the leg straps are not twisted or twisted. Secure the excess webbing with the elastic band keepers.
-Connect waist belt. If present. This strap should not bind you, but should be tight (see fig. 7).
-All of the straps have been secured, tighten and adjust all straps and secure excess webbing to harness web. It should allow a full range of movement and be snug (see fig. 8).

MATING BUCKLE CONNECTION

-The buckle with the center tail must pass under the square link (see fig. 9, item A).
-The center tail buckle should be turned so that the narrow side pass under and through the square link (see fig. 9, item B).
-The center tail buckle is then be pulled completely through the square link (see fig. 8, item C).
-Pull the loose end of the strap to tighten and adjust the harness (see fig. 10, item D). Slide the buckles to secure excess webbing (see fig. 8, item E).



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WARNING! -Harness must be worn in the full arrest D-ring is centered in the back near shoulder level. All straps must be connected and adjusted to provide a snug fit.
-Failure to have the leg straps properly adjusted at the level of a full arrest may result in serious personal injury.
-Maximum working load is 310 pounds, including clothing and tools. NOTE: Heavyweight product maximum working load is 400 pounds.
-Additional length of a D-ring limiter must be taken into consideration during the clearance calculation process.
-Only attach the unused leg of the largest task to the lanyard device keeper.
-Full arrest devices must be connected to the D-ring located on the back of the harness. The side, front and chest D-rings are for positioning only. Shoulder D-rings are for restraint only.
-Always visually check that all buckles are properly connected before each use.
-NEVER attach multiple snap hooks to a D-ring.

LABELING

Harness labels are positioned similar to that indicated in fig. 10. For sample label see fig. 11.

CONNECTION REQUIREMENTS

OSHA 29 CFR 1910.66 and 1926.502 prohibit snap hooks from being engaged in certain devices unless two requirements are met:
1. snap hook must be a locking type and;
2. must be designed for locking such a connection.
"Prohibited" means that the manufacturer of the snap hook specifically designed the snap hook to be used to connect to the equipment in question in the first place and;
Snap hooks must not be engaged:
-directly by webbing, rope or other wire rope;
-to each other;
-to a D-ring, in which another snap hook or other connector is attached;
-to horizontal lifelines;
-to any object which is horizontally attached or dimensioned in relation to the snap hook, such that unintentional displacement could occur by the connected object being able to disengage the snap hook keeper and release itself.

Connecting to a Full Body Harness

-Energy absorbing lanyards with a shock pack must only be connected with the energy absorbing end of the lanyard connected to the back D-ring of the harness (see fig. 12). ALWAYS make sure that any snap hook or carabiner are completely closed and locked. NEVER attach your connecting device to a D-ring other than the one on the back when using equipment for full arrest protection.
-Connecting to an Anchorage or Anchorage Connector:
-Single-Leg Energy Absorbing Lanyards: Connect the free end of the largest in the anchorage or anchorage connector.
-Outside-Leg Energy Absorbing Lanyards: Connect one of the free ends of the lanyard to the anchorage or anchorage connector. The additional leg is to be used when the user moves to a new location, ensuring 100% tie-off. ALWAYS connect the lanyard to the new location before disconnecting the first lanyard end.
-Single-Arrow Vertical Lifelines: Attach the connector of the lifeline to the approved anchorage or anchorage connector. The lifeline must be installed as previously possible over the intended work area to reduce the possibility of dangerous swing falls.



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WARNING! OSHA 29 CFR 1910.66 and 1926.502 state that the full arrest system must be rigged, such that the employee can neither fall more than six (6) feet, nor contact any lower level (see fig. 1). Always check for obstruction below the work area and ensure the full fall path is clear.
-Connections to any personal use only, NOT training or testing.
-Only attach the unused leg of the largest task to the lanyard device keeper.
-Assume working load is 310 pounds, including clothing and tools. NOTE: Heavyweight product maximum working load is 400 pounds.
-Only attach designed specifically for tying back directly onto the webbing are approved for such a connection.
-An energy absorbing lanyard is used with a cross-arm strap, anchorage connector, horizontal lifeline or D-ring extender, and must take into consideration the additional length of the cross-arm strap, anchorage connector, D-ring extender or sag from the lifeline during the clearance calculation process.
-Never enable or install a locking gate or attach a connecting device in any way.
-Never use any lanyard equipment with non-locking snap hooks or carabiners.

LABELING

Lanyard labels are positioned similar to that indicated in fig. 13. See fig. 14 for a closer view of labels.

INSPECTION

Full arrest equipment must be inspected prior to each use for wear, damage and other deterioration, and defective components must be immediately removed from service, in accordance with the requirements of OSHA 29 CFR 1910.66 and 1926.502.
-Any equipment that has been subjected to a fall, or any part of the tool indicator warning is showing, must be immediately removed from service until a qualified person can determine the need for authorized repair or disposal.
-All components of the full arrest system must be inspected.
-Webbing and Rope: After grasping the webbing with your hands about 6-8 inches apart, bend the strap in an inverted "V" shape. This helps to make damage more visible. Continue the procedure until all the webbing has been inspected for frayed edges, broken fibers, pulled stitches, unlapping, torn cuts, burns, holes, and other signs of wear or damage. All rope options must be secure. Pulling, heaving, buckles and D-rings must be moved to inspect webbing hidden by these components.
-Snaps: Snaps, AUTO-SAVE are given when handling or inspection any parts. After grasping the cable with your hands about 6-8 inches apart, rotate the cable to inspect webbing with both hands. Inspect for any evidence of cuts, nicks, tears, areas, unusual wearing patterns or other damage. Broken strands will separate from the body of the cable if they are present. Continue the process until all the cable has been inspected.
-Thimbles: All thimbles must be firmly seated in the eye of the splice. Thimbles edges must be free from sharp edges, distortion or cracks.
-D-Rings: All D-rings should be checked for distortion, cracks, breaks, and rough or sharp edges. The D-ring should feel easily.
-Hooks and Carabiners: Carabiners must be used to connect, distorted or bent, and must be free from. All hooks and carabiners must be able to close and lock properly.
-Buckles: All buckles must be free of any distortion. The outer and center metal must be straight. Corners and attachment points should be given additional inspection. Inspect for any unusual wear and any fraying of cut materials.
-Tongue or Braid: The tongue (or braid) should be inspected closely, as if removed from use. Check for loose, distorted or broken granules. The granules within MUST NOT have any additional holes.
-Tongue Buckles: Tongue buckles should be free of distortion and should overlap the buckle frame so that they move freely back and forth in their slot. The metal should be free from any holes.
-All markings must be legible and attached to the equipment.
-Any equipment exhibiting deficiencies, unusual wear or deterioration must be immediately removed from service.

CLEANING MAINTENANCE AND STORAGE OF EQUIPMENT

-Cleaning and maintenance may be performed on the product.
-Wash webbing with warm water and a mild detergent. Avoid harsh chemicals.
-Always webbing to air dry. Do not heat dry.
-Snap hooks and carabiners may require lubrication. Use a lubricant that has proper resistance to temperature extremes, moisture and corrosion. Do not apply oil, grease or other contaminants on the lanyard. Do not lubricate.
-Equipment must be cleaned and dried prior to storage.
-Store away from direct sunlight in a cool dry area free from chemicals and other vapors, or other degrading elements.
-Equipment that is in need of or scheduled for maintenance and be tagged as "unusable" and removed from service.
-Do not store equipment tagged as "unusable" in the same area as product approved for use.



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¡ADVERTENCIA! El uso adecuado de los sistemas de detención de caídas puede ayudar a salvar vidas y puede reducir la posibilidad de lesiones graves a causa de una caída. Los usuarios deben leer y entender las instrucciones proporcionadas con el producto y estar adecuadamente entrenados por su empleador antes de su uso por la norma 29 CFR 1910.66 y 1926.503. El incumplimiento de todas las advertencias a más tardar del equipo puede resultar en lesiones graves o la muerte. Consulte a un médico si hay alguna duda sobre la capacidad del usuario para utilizar el producto. Si tiene alguna pregunta, llame a SafeWaze EE.UU.

-Antes de utilizar un sistema de detención de caídas, los empleados deben ser formados de acuerdo con los requisitos de la norma 29 CFR 1910.66 en el uso seguro del sistema y sus componentes.
-Los usuarios deben tener un plan de rescate, y los usuarios deben estar preparados, que proporcione el rescate inmediato de los trabajadores en caso de una caída, o asegure que los empleados son capaces de rescatarse a sí mismos.
-El equipo de protección contra caídas debe ser utilizado únicamente para el propósito para el que fue diseñado y pensado. NUNCA utilizar el equipo de protección diseñado para ser utilizado en situaciones que no están diseñadas para ello.
-El riesgo de detención de caídas debe ser considerado antes de cada uso por el desgaste, daños y otros factores, y los componentes debidamente se debe retirar inmediatamente del servicio, de conformidad con los requisitos de la norma 29 CFR 1910.66 y 1926.502.
-Siempre usar componentes compatibles. Software productos están diseñados para su uso con otros productos SafeWaze. La sustitución o reemplazo con combinaciones de componentes no aprobados o sustituciones pueden afectar o interferir con el funcionamiento seguro de la red.
-Plague en información tanto con el representante de SafeWaze EE.UU. para obtener información sobre el diseño del sistema.
-OSHA 29 CFR 1910.66 y 1926.502 establece que el sistema de detención de caídas debe estar instalado en el lugar de trabajo de acuerdo con los requisitos de la norma 29 CFR 1910.66 y 1926.503. El incumplimiento de todas las advertencias a más tardar del equipo puede resultar en lesiones graves o la muerte. Consulte a un médico si hay alguna duda sobre la capacidad del usuario para utilizar el producto. Si tiene alguna pregunta, llame a SafeWaze EE.UU.

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-Siempre usar componentes compatibles. Software productos están diseñados para su uso con otros productos SafeWaze. La sustitución o reemplazo con combinaciones de componentes no aprobados o sustituciones pueden afectar o interferir con el funcionamiento seguro de la red.
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SAFEWAZE

safewaze.com | (P) (800)230-0319
225 Wilshire Ave SW, Concord, NC 28025, USA

TECHNICAL DATA SHEET



FS902

Rescue Support Steps

Description	Safewaze™ rescue support steps are designed to relieve pressure and promote circulation until the fall victim is able to be rescued.
Instructions	Place the loop through the lower D-ring slot, closest to the webbing, and pull the bag through loop to cinch
Length	70" (1.78 m)
Maximum Working Load	400 lbs (140.61 kg)
Weight	0.25 lbs (0.11 kg)



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FS902

Rescue Support Steps

INSTALLATION / USAGE INSTRUCTIONS

WARNING!!!!

FAILURE TO READ AND UNDERSTAND THESE INSTALLATION INSTRUCTIONS MAY
RESULT IN SERIOUS INJURY OR DEATH

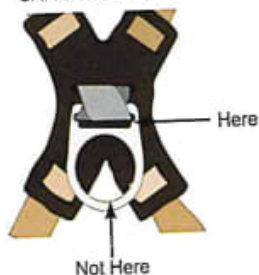
ENSURE THAT THE FS902 RESCUE SUPPORT STEPS HAVE NOT BEEN DAMAGED DURING SHIPPING PRIOR TO USE.

THE FS902 IS AN ENGINEERED PRODUCT. IF DAMAGED, IT MUST BE REMOVED FROM SERVICE AND MARKED FOR DISPOSAL.

SYNTHETIC STRAPS SHOULD NOT BE USED IN EXCESS OF 200° F TO AVOID DAMAGE FROM HEAT, WELDING SPLATTER/ SPARKS, AND CORROSIVE CHEMICALS.

IMPORTANT!!!!

CAREFULLY READ ALL INSTALLATION AND SPECIFICATION INSTRUCTIONS REGARDING THE USE OF THIS PRODUCT.

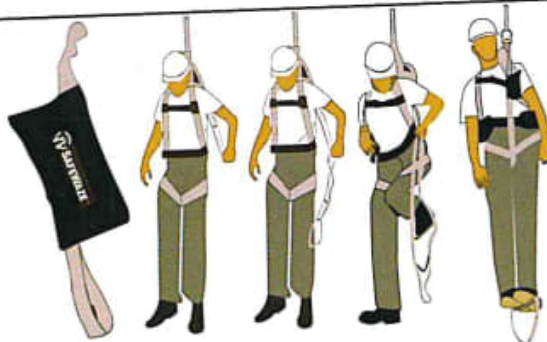


Installation

Place the fixed loop of the Rescue Support Steps through the slot in the Harness D-ring. Pull bag back through the loop and cinch it to the side of the D-ring slot.

Note: DO NOT attach to circular portion of D-ring.

Once a fall has occurred, open bag by pulling apart the velcro fastener on bottom of bag, or pulling on pullout loop, allowing the stirrup straps to be pulled out. Place feet in stirrups of the strap for support.



Inspection

All Rescue Support Steps must be inspected prior to each use.

All webbing must be inspected for tears, cuts, fraying, abrasion, discoloration, burns, holes, mold, or other signs of wear and damage.

All Rescue Support Steps must be free of corrosion, chemical exposure, alteration, excessive heating, or wear.

If inspection reveals any defect, inadequate maintenance, or unsafe condition, remove from service and mark for disposal.

Cleaning and Maintenance

Rescue support steps can be wiped down with a mild detergent and clean water solution, and rinsed with a dampened cloth to remove detergent. No maintenance is required for this product.

Pro Full Body Harness

Instruction Manual

Safewaze Full Body Harness



WARNING



This product is part of a personal fall arrest, work positioning, or rescue system. The manufacturer's instructions must be provided to users of this equipment. The user must follow the manufacturer's instructions for each component of the system. The user must read and understand these instructions before using this equipment. Manufacturer's instructions must be followed for proper use and maintenance of this equipment. Alterations to this product, misuse of this product, or failure to follow instructions may result in serious injury or death.



IMPORTANT

Questions regarding the use, care, or suitability of this equipment for your application? Contact Safewaze.



IMPORTANT

Record identification information before using this product. Identification information may be found on the equipment label (See Figure 22). This information should be recorded in the "Inspection Form" located at the back of this manual (p 20).

ANSI Z359.11-2021

OSHA 1910.66, OSHA 1926.502

This manual is intended to meet the manufacturer's instructions as required by ANSI Z359.11 and should be used as part of an employee training program as required by OSHA.

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User Information

Date of First Use: _____

Serial#: _____

Trainer: _____

User: _____



WARNING

These instructions must be provided to any person utilizing this equipment. The worker must read and understand the manufacturer's instructions for this, and all other components of the complete Fall Protection System. It is expected that all personnel be fully trained in the safe installation and use of this equipment. These instructions must be followed for the proper use, maintenance, and inspection of this equipment. These instructions must be kept and made available to worker's at all times. Any alteration, misuse, or use of this equipment outside the scope of the manufacturer's instructions, may result in serious injury or death. A comprehensive Fall Protection Plan must be kept on file and available to all employees at all times.

Inspect all components of this system prior to each use and at least annually. Inspect in accordance with the user instructions. If this equipment is exposed to the forces of a Fall Arrest or Impact Force, the equipment must be removed from service and inspected by a Competent Person prior to being used again.

This product is part of a complete fall protection system. A PFAS is typically composed of a Full Body Harness, Anchorage, and a Connecting Device. Connecting Devices used with Safewaze Full Body Harnesses are Energy Absorbing Lanyards (EAL's) or a Self Retracting Lifeline (SRL). The connection point to the FBH for use of a Safewaze Vertical Lifeline (VLL) is the Sternal (Front) D-ring.

Personnel must always maintain 3 points of contact during climbing operations. If utilizing components from different manufacturers, ensure that all components are compatible and meet all applicable standards, codes, and requirements. Before using this equipment, consult with a Competent and/or Qualified Person.

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 or minors must not use this equipment. Failure to heed this warning may result in serious injury or death.

Never exceed the maximum allowable capacity of your fall protection equipment. Never exceed the maximum free fall distance of your fall protection equipment.

Do not use this system or any other part of a PFAS that fails pre-use or other scheduled inspections. For any questions or concerns regarding the use of this equipment for an application not specified in this manual, contact Safewaze technical support.

Additional precautions should be used when working in environments of high heat, electrical hazards, chemical hazards, explosive or combustible chemicals, toxic materials, sharp edges, or where equipment used above could topple onto a user below or their fall protection equipment.

Use of a body belt for fall protection applications is not permitted. Only use an approved Full Body Harness.

Make considerations for eliminating or minimizing all swing fall hazards. Swing falls occur when the anchor is not directly above the location where a fall occurs. Always work as close to in line with the anchor point as possible. Swing falls significantly increase the likelihood of serious injury or death in the event of a fall.

Contact Safewaze if you have questions regarding compatibility of this equipment that are not covered in this manual. Do not alter or misuse this equipment. Some subsystem components could affect the performance and the operation of this equipment. Do not anchor this product to moving machinery, or hazards that have chemical, electrical or gaseous characteristics. Failure to comply with this warning could result in serious injury or death.

Do not throw away these instructions!

Read and understand these instructions before using equipment!



Per ANSI Z359.11-2021:

It is essential that the users of this type of equipment receive proper training and instruction including detailed procedures for the safe use of such equipment in their work application. ANSI/ASSP Z359.2, *Minimum Requirements for a Comprehensive Managed Fall Protection Program*, establishes guidelines and requirements for an employer's managed fall protection program including policies, duties and training; fall protection procedures; eliminating and controlling fall hazards; rescue procedures; incident investigations; and evaluating program effectiveness.

Correct fit of a full body harness (FBH) is essential to proper performance. Users must be trained to select the size and maintain the fit of their FBH.

Users must follow manufacturer's instructions for proper fit and sizing, paying particular attention to ensure that buckles are connected and aligned correctly, leg straps and shoulder straps are kept snug at all times, chest straps are located in the middle chest area and leg straps are positioned and snug to avoid contact with the genitalia should a fall occur.

FBHs which meet ANSI/ASSP Z359.11 are intended to be used with other components of a personal fall arrest system that limit maximum arrest forces to 1800 pounds (8kN) or less.

Suspension intolerance, also called suspension trauma or orthostatic intolerance, is a serious condition that can be controlled with good harness design, prompt rescue and post fall suspension relief devices. A conscious user may deploy a suspension relief device allowing the user to remove tension from around the legs, freeing blood flow, which can delay the onset of suspension intolerance. An attachment element extender is not intended to be attached directly to an anchorage or anchorage connector for fall arrest. An energy absorber must be used to limit maximum arrest forces to 1800 pounds (8 kN). The length of the attachment element extender may affect free fall distances and free fall clearance calculations.

FBH stretch, the amount the FBH component of a personal fall arrest system will stretch and deform during a fall, can contribute to the overall elongation of the system in stopping a fall. It is important to include the increase in fall distance created by FBH stretch, as well as the FBH connector length, the settling of the user's body in the FBH and all other contributing factors when calculating total clearance required for a particular fall arrest system.

When not in use, unused lanyard legs that are still attached to a FBH D-ring should not be attached to a work positioning element or any other structural element on the FBH unless deemed acceptable by the competent person and manufacturer of the lanyard. This is especially important when using some types of "Y" style lanyards, as some load may be transmitted to the user through the unused lanyard leg if it is not able to release from the harness. The lanyard parking attachment is generally located in the sternal area to help reduce tripping and entanglement hazards.

Loose ends of straps can get caught in machinery or cause accidental disengagement of an adjuster. All FBH shall include keepers or other components which serve to control the loose ends of straps.

Due to the nature of soft loop connections, it is recommended that soft loop attachments only be used to connect with other soft loops or carabiners. Snaphooks should not be used unless approved for the application by the manufacturer.

The following is additional information concerning the location and use of various attachments that may be provided on this FBH:

Dorsal - The dorsal attachment element shall be used as the primary fall arrest attachment unless the application allows the use of an alternate attachment. The dorsal attachment may also be used for travel restraint or rescue. When supported by the dorsal attachment during a fall, the design of the FBH shall direct load through the shoulder straps supporting the user and around the thighs. Supporting the user, post fall, by the dorsal attachment will result in an upright body position with a slight lean to the front with some slight pressure to the lower chest. Considerations should be made when choosing a sliding versus fixed dorsal attachment element. Sliding dorsal attachments are generally easier to adjust to user sizes, and allow a more vertical rest position post fall, but can increase FBH stretch.

Sternal - The sternal attachment may be used as an alternative fall arrest attachment in applications where the dorsal attachment is determined to be inappropriate by a competent person and where there is no chance to fall in a direction other than feet first. Accepted practical uses for sternal attachment include, but are not limited to, ladder climbing with a guided type fall arrester, ladder climbing with an overhead self-retracting lifeline for fall arrest, work positioning and rope access. The sternal attachment may also be used for travel restraint or rescue.

When supported by the sternal attachment during a fall, the design of the FBH shall direct load through the shoulder straps supporting the user and around the thighs. Supporting the user, post fall, by the sternal attachment will result in roughly a sitting or cradled body position with weight concentrated on the thighs, buttocks, and lower back. Supporting the user during work positioning by this sternal attachment will result in an approximate upright body position.

If the sternal attachment is used for fall arrest, the competent person evaluating the application should take measures to ensure that a fall can occur feet first. This may include limiting the allowable free fall distance. It may be possible for a sternal attachment incorporated into an adjustable style chest strap to cause the chest strap to slide up and possibly choke the user during a fall, extraction, suspension, etc. The competent person should consider FBH models with a fixed sternal attachment for these applications.

Shoulder - The shoulder attachment elements shall be used as a pair and are an acceptable attachment for rescue and entry/retrieval. The shoulder attachment elements shall not be used for fall arrest. It is recommended that the shoulder attachment elements be used in conjunction with a yoke which incorporates a spreader element to keep the FBH shoulder straps separate.

Frontal - The frontal attachment serves as a ladder climbing connection for guided type fall arresters where there is no chance to fall in a direction other than feet first or may be used for work positioning. Supporting the user, post fall or during work positioning, by the frontal attachment will result in a sitting body position with the upper torso upright with weight concentrated on the thighs and buttocks. When supported by the frontal attachment the design of the FBH shall direct load directly around the thighs and under the buttocks by means of the sub-pelvic strap.

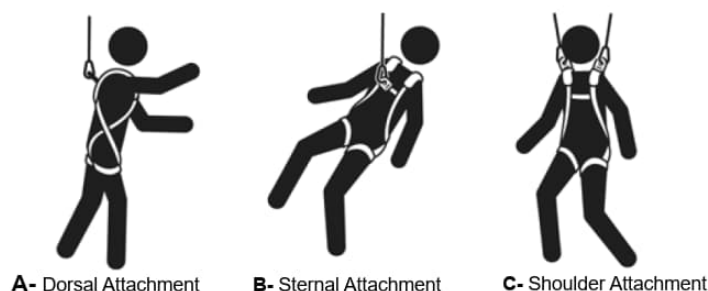
If the frontal attachment is used for fall arrest, the competent person evaluating the application should take measures to ensure that a fall can only occur feet first. This may include limiting the allowable free fall distance.

Hip - The hip attachment elements shall be used as a pair and shall be used solely for work positioning. The hip attachment elements shall not be used for fall arrest. Hip attachments are often used for work positioning by arborists, utility workers climbing poles and construction workers tying rebar and climbing on form walls. Users are cautioned against using the hip attachment elements (or any other rigid point on the FBH) to store the unused end of a fall arrest lanyard as this may cause a tripping hazard or, in the case of multiple leg lanyards, could cause adverse loading to the FBH and the wearer through the unused portion of the lanyard.

Waist, Rear - The waist, rear attachment shall be used solely for travel restraint. The waist, rear attachment element shall not be used for fall arrest. Under no circumstances is it acceptable to use the waist, rear attachment for purposes other than travel restraint. The waist, rear attachment shall only be subjected to minimal loading through the waist of the user and shall never be used to support the full weight of the user.

Suspension Seat - The suspension seat attachment elements shall be used as a pair and shall be used solely for work positioning. The suspension seat attachment elements shall not be used for fall arrest. Suspension seat attachments are often used for prolonged work activities where the user is suspended allowing the user to sit on the suspension seat formed between the two attachment elements. An example of this use would be window washers on large buildings.

FIGURE 1 - APPROVED D-RING APPLICATIONS





D- Frontal Attachment



E- Hip Attachment



F- Waist, Rear Attachment

Application	Harness Attachment Location
Fall Arrest	Dorsal, Sternal, Frontal
Restraint	Dorsal, Sternal, Frontal, Hip, Rear
Work Positioning	Frontal, Hip
Rescue	Dorsal, Sternal, Frontal, Shoulder
Controlled Descent	Dorsal, Sternal, Frontal
Climbing	Dorsal, Sternal

USER INSPECTION, MAINTENANCE AND STORAGE OF EQUIPMENT

Users of personal fall arrest systems shall at a minimum, comply with all manufacturer instructions regarding the inspection, maintenance and storage of the equipment. The user's organization shall retain the manufacturer's instructions and make them readily available to all users. See ANSI Z359.2, *Minimum Requirements for a Comprehensive Managed Fall Protection Program*, regarding user inspection, maintenance and storage of equipment.

- In addition to the inspection requirements set forth in the manufacturer's instructions, the equipment shall be inspected by the user before each use and additionally by a competent person, other than the user, at interval of no more than one year for:
 - Absence or illegibility of markings.
 - Absence of any elements affecting the equipment form, fit or function.
 - Evidence of defects in, or damage to, hardware elements including cracks, sharp edges, deformation, corrosion, chemical attack, excessive soiling, abrasion, alteration, needed or excessive lubrication, excessive aging and excessive wear.
- Inspection criteria for the equipment shall be set by the user's organization. Such criteria for the equipment shall equal or exceed the criteria established by this standard or the manufacturer's instructions, whichever is greater.
- When inspection reveals defects in, damage to, or inadequate maintenance of equipment, the equipment shall be permanently removed from service or undergo adequate corrective maintenance by the original equipment manufacturer or their designate before return to service.

MAINTENANCE AND STORAGE

- Maintenance and storage of equipment shall be conducted by the user's organization in accordance with the manufacturer's instructions. Unique issues, which may arise due to conditions of use, shall be addressed with the manufacturer.
- Equipment, which is in need of, or scheduled for, maintenance shall be tagged as unusable and removed from service.
- Equipment shall be stored in a manner as to preclude damage from environmental factors such as temperature, light, UV, excessive moisture, oil, chemicals and their vapors or other degrading elements.

1.0 INTRODUCTION

Thank you for purchasing a Safewaze Full Body Harness (FBH). This manual must be read and understood in its entirety, and used as part of an employee training program as required by OSHA or any applicable state agency. This manual and any other instructional material must be available to the user of the equipment. The user must understand how to safely and effectively use their full body harness, and all fall protection equipment used in conjunction with the full body harness.

2.0 APPLICATION

The Safewaze Full Body Harness (FBH) is the bodywear component of a Personal Fall Arrest System (PFAS). Safewaze Full Body Harnesses are offered in a variety of configurations to ensure that the user can work safely and comfortably in any work environment. These instructions will cover the proper donning and use of the FBH, as well as the proper connection of components and devices to the various connection points on the harness. The FBH must be properly fitted to the user. The Safewaze FBH is part of a complete PFAS that requires a properly rated anchorage and connector, that in conjunction with an appropriate connecting device, meets the fall protection requirement.

3.0 APPLICABLE SAFETY STANDARDS

When used according to instructions, harnesses included in this manual meet ANSI Z359.11-2021 and OSHA regulations for fall protection. Applicable standards and regulations depend on the type of work being done, and may include state-specific regulations. Refer to local, state, and federal (OSHA) requirements for additional information concerning the governing of occupational safety regarding Personal Fall Arrest Systems (PFAS).

4.0 WORKER CLASSIFICATIONS

Understand the definitions of those who work in proximity of or may be exposed to fall hazards.

Qualified Person: "Qualified Person" means one who, by possession of a recognized degree, certificate, or professional standing, or who by extensive knowledge, training, and experience, has successfully demonstrated his ability to solve or resolve problems relating to the subject matter, the work, or the project.

Competent Person: "Competent Person" means one who is capable of identifying existing and predictable hazards in the surroundings or working conditions which are unsanitary, hazardous, or dangerous to employees, and who has authorization to take prompt corrective measures to eliminate them.

Authorized Person: "Authorized Person" means a person approved or assigned by the employer to perform a specific type of duty or duties or to be at a specific location or locations at the job site.

It is the responsibility of a Qualified or Competent person to supervise the job site and ensure safety regulations are complied with.

5.0 PURPOSE

Purpose: The Safewaze series of full body harnesses are designed to be used as part of a Personal Fall Arrest System (PFAS).

- A competent person shall train users on this equipment in accordance with OSHA and ANSI.
- Never exceed a free fall distance of 6 ft. A free fall of more than 6 ft could cause excessive arrest forces that could result in serious injury or death.
- Safewaze harnesses have a maximum capacity of:
ANSI 310 lbs (140.6 kg) including tools, clothing, etc..., **OSHA** up to 420 lbs. (190.51 kg) including tools, clothing, etc...
- Anchorages for attachment of Safewaze full body harnesses shall support a minimum of 5,000 lbs or be designed with a safety factor of two by a Qualified Person.

- All Safewaze full body harnesses must IMMEDIATELY be removed from service if subjected to fall arrest forces.
- Safewaze full body harnesses shall be inspected by the end user prior to each usage and by a Competent Person other than the user at least annually. These annual inspections shall be documented.

6.0 LIMITATIONS & REQUIREMENTS

When installing or using this equipment always refer to the following requirements and limitations:

6.1 CAPACITY

Safewaze Full Body Harnesses are designed for the following weight capacities (Maximum capacities include clothing, tools, and equipment):

ANSI Z359: 130-310 lbs max
OSHA: Up to 420 lbs max

6.2 ANCHORAGE

Anchorage selected for fall arrest systems shall have a strength capable of sustaining static loads applied in the directions permitted by the system of at least:

1. 5,000 lbs. (22.2 kN) for non-certified anchorages, or
2. Two times the maximum arresting force for certified anchorages.

When more than one fall arrest system is attached to an anchorage, the strengths set forth in (1) and (2) above shall be multiplied by the number of systems attached to the anchorage.

From OSHA 1926.502 and 1910.66

Anchorage used for attachment of personal fall arrest systems shall be independent of any anchorage being used to support or suspend platforms, and capable of supporting at least 5,000 lbs (22.2 kN) per user attached, or be designed, installed, and used as part of a complete personal fall arrest systems which maintains a safety factor of at least two, and is under the supervision of a qualified person.

6.3 INSPECTION FREQUENCY

Either the Authorized Person (User), or the Rescuer must inspect this equipment before each use. Annual inspections must be completed by a Competent Person other than the user. Results must be documented.

6.4 RESCUE PLAN

When using this equipment, employers must create a rescue plan, and provide the means to implement the plan. This plan must be communicated to equipment users, authorized persons, and rescuers. Rescue operations require specialized equipment beyond the scope of this manual. See ANSI Z359.4-2013 for specific rescue information.



NOTE: Special rescue measures may be required for a fall over an edge.

6.5 FREE FALL

In order to ensure reduced fall distances, always attempt to anchor the connecting device directly overhead. Overhead anchoring will limit free fall distance to a minimum. Be aware of workers sharing the workspace to avoid becoming tangled with another worker. Steer clear of objects that could fall and impact a lifeline. The lifeline should never pass under the user's arms or legs. A lifeline should never be knotted, clamped, or be otherwise modified.

6.6 BODY SUPPORT

A Personal Fall Arrest System (PFAS) must utilize a Full Body Harness. Refer to Figure one of this manual for specific FBH D-ring approved applications

6.7 FALL CLEARANCE

It is important to make sure that adequate clearance is available. Free Fall, Maximum Arrest Distance, Height of Worker, and current clearance above the next fall hazard must all be considered in the Fall Clearance calculation.

6.8 DETERMINE REQUIRED FALL CLEARANCE

Determining fall clearance is critical in understanding the correct connecting device to use. The lower the clearance height, the less options available to connect to the anchor point with. To Determine Fall Clearance several factors must be considered:

Length of Anchorage connector (LA)

Length of Connecting device (LC)

Maximum Arrest Distance of connecting device (MAD)

Height of Worker (HW)

Safety Factor (SF) - (Includes harness stretch, typically 2')

Distance from Anchor Point to next closest obstruction (DAP)

Using the above information Fall Clearance (FC) can be determined with the following formula

$$FC \text{ (from anchor point)} = LA + LC + MAD + HW + SF$$

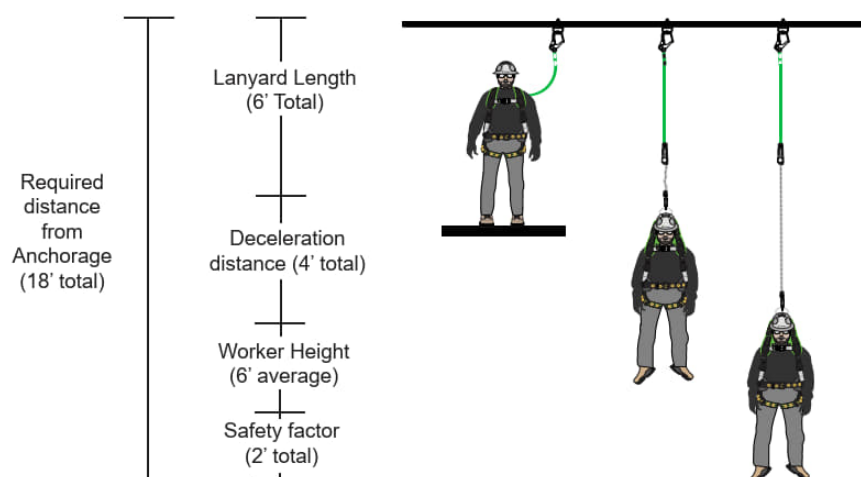
Fall Clearance: There must be sufficient clearance below the anchorage connector to arrest a fall before the user strikes the ground or an obstruction. When calculating fall clearance, account for a MINIMUM 2' safety factor, deceleration distance, user height, length of lanyard/SRL, and all other applicable factors. (See Figure 2)

FIGURE 2 - DETERMINE REQUIRED FALL CLEARANCE

For all applications: worker weight capacity range (including all clothing, tools, and equipment) is 130-310 lbs. per ANSI Z359.11-2021. Weight capacity per OSHA is up to 420 lbs.

***Diagram shown is an example fall clearance calculation ONLY.

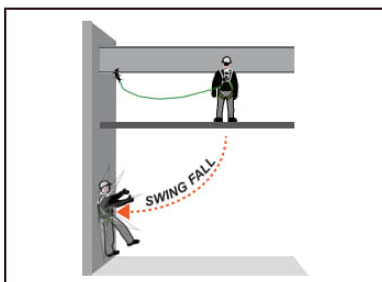
Fall Clearance Diagram



6.9 SWING FALLS

An anchorage point located in a position that is not directly over the user's fall location results in a swing fall (See Figure 3). Swing falls may result in the user striking an object with enough force to cause serious injury. Greater clearance is needed to ensure safety during a swing fall as vertical fall distance will be greater than a fall originating directly below the anchorage point.

FIGURE 3 - SWING FALLS



7.0 COMPATIBILITY OF COMPONENTS

Unless otherwise noted, Safewaze equipment is designed for use with Safewaze approved components and subsystems only. Substitutions or replacements made with non approved components or subsystems may jeopardize compatibility of equipment and may affect safety and reliability of the complete system.



IMPORTANT: Read and follow manufacturer's instructions for associated components and subsystems in your personal fall arrest system.

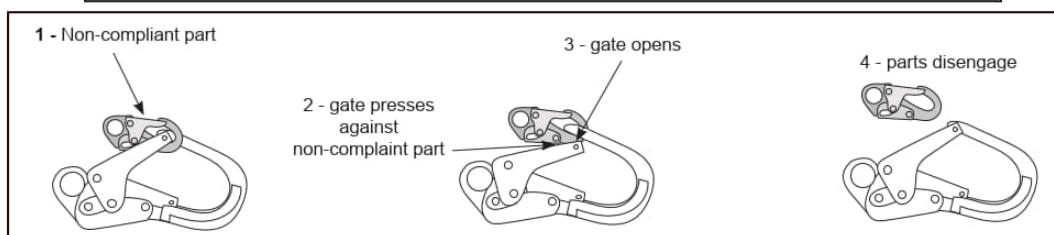
8.0 COMPATIBILITY OF CONNECTORS

Connectors are compatible with connecting elements when they have been designed to work together in such a way that their sizes and shapes do not cause their gate mechanisms to inadvertently open regardless of how they become oriented. Connectors (hooks, carabiners, and D-rings) must be capable of supporting at least 5,000 lbs. (22.2 kN). Do not use equipment that is not compatible. Non-compatible connectors may unintentionally disengage (See Figure 4). Connectors must be compatible with the anchorage or other system components (See Figure 5). Connectors must be compatible in size, shape, and strength. Self-locking snap hooks and carabiners are required by ANSI Z359 and OSHA guidelines. Contact Safewaze if you have any questions about compatibility.



NOTE: SOME SPECIALTY CONNECTORS HAVE ADDITIONAL REQUIREMENTS. CONTACT SAFEWAZE WITH QUESTIONS.

FIGURE 4 - UNINTENTIONAL DISENGAGEMENT



Using a connector that is undersized or irregular in shape (1) to connect a snap hook or carabiner could allow the connector to force open the gate of the snap hook or carabiner. When force is applied, the gate of the hook or carabiner presses against the non-compliant part (2) and forces open the gate (3). This allows the snap hook or carabiner to disengage (4) from the connection point.

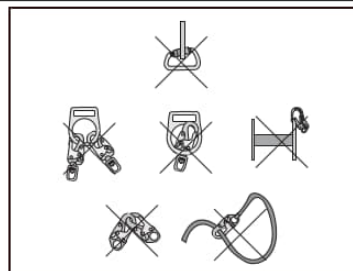
9.0 MAKING CONNECTIONS

Snap hooks and carabiners used with this equipment must be double locking and/or twist lock. Ensure all connections are compatible in size, shape and strength. Do not use equipment that is not compatible. Ensure all connectors are fully closed and locked.

Safewaze connectors (snap hooks and carabiners) are designed to be used only as specified in each product's user instructions. See Figure 5 for examples of inappropriate connections. Do not connect snap hooks and carabiners:

- To a D-ring to which another connector is attached.
- In a manner that would result in a load on the gate (with the exception of tie-back hooks). NOTE: Large snap hooks must not be connected to objects which will result in a load on the gate if the hook twists or rotates, unless the snap hook complies with ANSI Z359.12 and is equipped with a 3,600 lb (16 kN) gate. Check the marking on your snap hook to verify its compatibility.

FIGURE 5 - INAPPROPRIATE CONNECTIONS



10.0 BUCKLE TYPE AND OPERATION

FIGURE 6 - BUCKLE OPERATION

MATING BUCKLE



QUICK-CONNECT BUCKLE

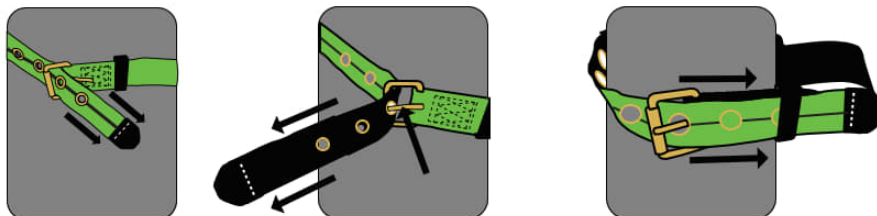
CONNECT



DISCONNECT



TONGUE BUCKLE

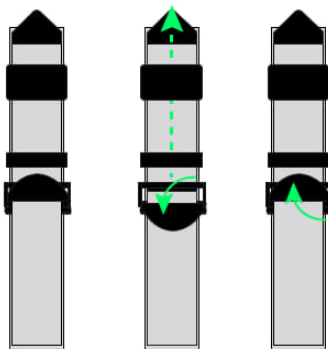


10.1 TORSO ADJUSTER TYPE AND OPERATION

Safewaze FBHs utilize 3 types of adjusters (adjuster type depends on harness model). Figure 7 indicates the Torso Adjuster options available and the proper operation of each type.

FIGURE 7 - TORSO ADJUSTER OPERATION

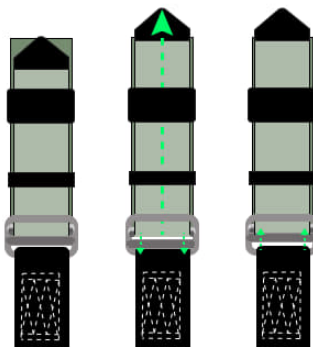
QUICK TORSO ADJUSTER



To operate the Quick Torso Adjuster:

- Step 1:** Push down on the Quick Adjuster tab which releases tension on the torso strap webbing.
- Step 2:** Pull up on the free end of the torso strap to shorten, or push downward on the Quick Torso Adjuster to lengthen the FBH torso straps.
- Step 3:** Release the Quick Adjuster tab once torso strap is proper adjusted and stow excess webbing with the elastic webbing keeper.

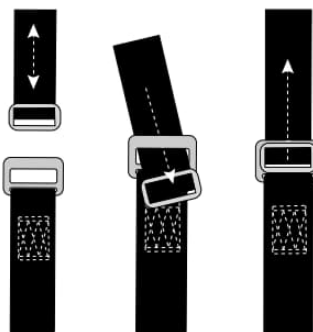
FRICTION TORSO ADJUSTER



To operate the Friction Torso Adjuster:

- Step 1:** Pull on the free end of the torso webbing to tighten the strap. Loosen the strap by pulling on the free end of the strap and then back the webbing through the Friction Adjuster.
- Step 2:** Release the webbing and stow excess webbing with elastic webbing keeper.

MATING BUCKLE TORSO ADJUSTER



To operate the Mating Buckle Torso Adjuster

- Step 1:** Adjust the webbing length of the male buckle to approximate required length
- Step 2:** Insert the Male Buckle through the slot in the Female Buckle.
- Step 3:** Tighten the free end of the strap so that the Male Buckle is seated securely in the Female Buckle.
- Step 4:** Stow excess webbing with elastic webbing keeper.

11.0 APPLICATION LIMITS

Precautions should be taken in the design and installation of a PFAS in order to avoid hazards such as thermal, chemical, or electrical hazards. Avoid moving machinery, sharp and/or abrasive edges, and any other hazard that could damage or degrade components of the PFAS.

12.0 RESTRICTIONS

Safewaze FBH's are offered in a variety of configurations to suit a multitude of work environments. The unique features of a specific FBH may not be suited for all applications. The following are some restrictions that should be considered prior to use of your Safewaze FBH:

Extended Free Falls: All Safewaze FBH's are designed and rated for 6' (1.83 m) and 12' (3.66 m) FF applications. For 12' FF applications, the user must use a Personal Energy Absorber (PEA) rated for for this level of free fall.

Harsh Chemical Environments: Work operations in a caustic or acidic chemical hazard environment may cause damage to your Safewaze FBH. Damage to your FBH due to chemical exposure can, in some instances, be difficult to detect. In any environment, your Safewaze FBH must be inspected prior to each use, however, a harsh chemical environment can necessitate more frequent inspections. Care should be taken to inspect your FBH before, during, and after each use. A harsh chemical environment may also cause a need for more frequent replacement of your FBH.

Welding, Arc Flash, High Heat Environments: If work operations are conducted in an environment where the FBH may be exposed to extremely high temperatures, the user should choose a FBH specifically designed for these environments. Specific Safewaze FBH's are available for welding, fire resistance, and ARC Flash environments.

Heavyweight: Although ANSI Z359.11 specifies a weight capacity range of 130 to 310 lbs. (59 to 140 kg), most Safewaze FBH's have a maximum weight capacity of up to 420 lbs. (191 kg). If the user has a weight that exceeds the ANSI max weight of 310 lbs. (140 kg), it should be ensured that other components of the PFAS are rated for a heavyweight user.



IMPORTANT: The components of a PFAS used in conjunction with the Safewaze FBH should meet the requirements of the ANSI Z359 Fall Protection Code.

13.0 FBH PRE-USE INSPECTION

Upon receiving your Safewaze Full Body Harness, remove the harness from the packaging and fully inspect harness for possible damage that may have occurred during shipping.

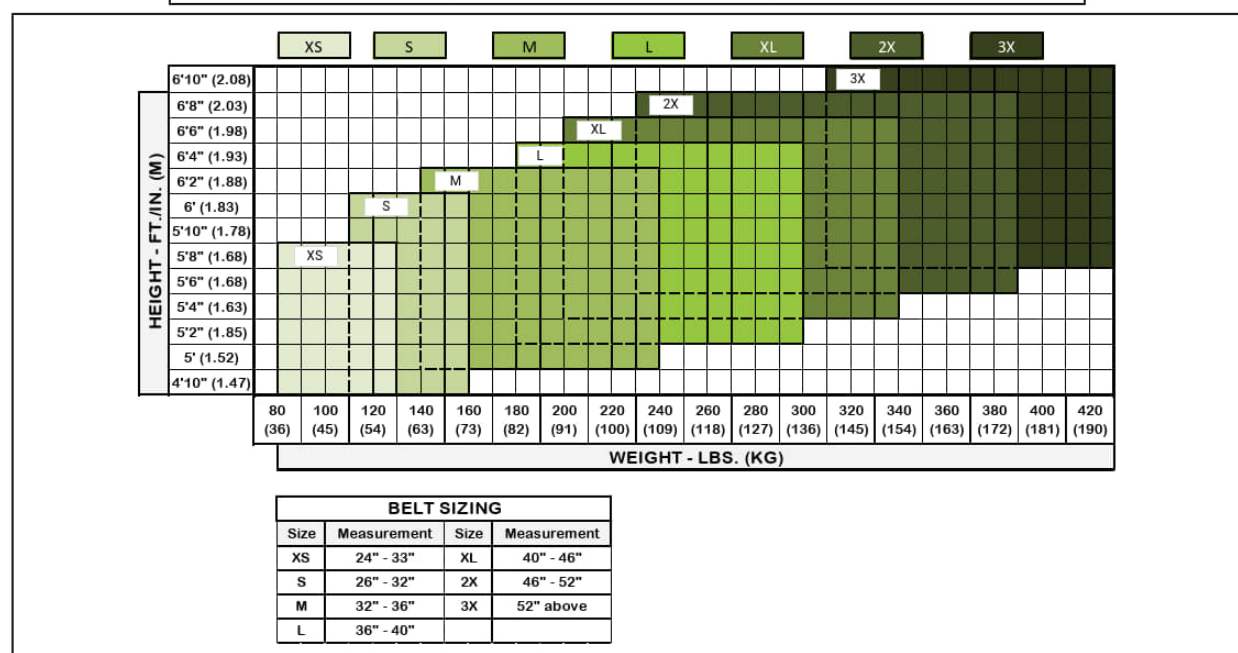
Prior to each use, inspect for the following conditions:

- Inspect the webbing of the harness for cuts, frays, broken stitching, damage from heat or chemical exposure, or other defects related to excessive wear or abrasion.
- Inspect the harness for indications that it has been exposed to fall arrest forces. All Safewaze FBH's are equipped with two load indicators (one on each back torso strap). If either of the load indicators have been deployed (See Figure 7) remove the FBH from service and dispose of as described in Section 6.5.
- Inspect FBH labeling to ensure that they are legible and present on the harness. If any labeling is illegible, or missing, remove the FBH from service.

14.0 HARNESS SIZING AND FIT

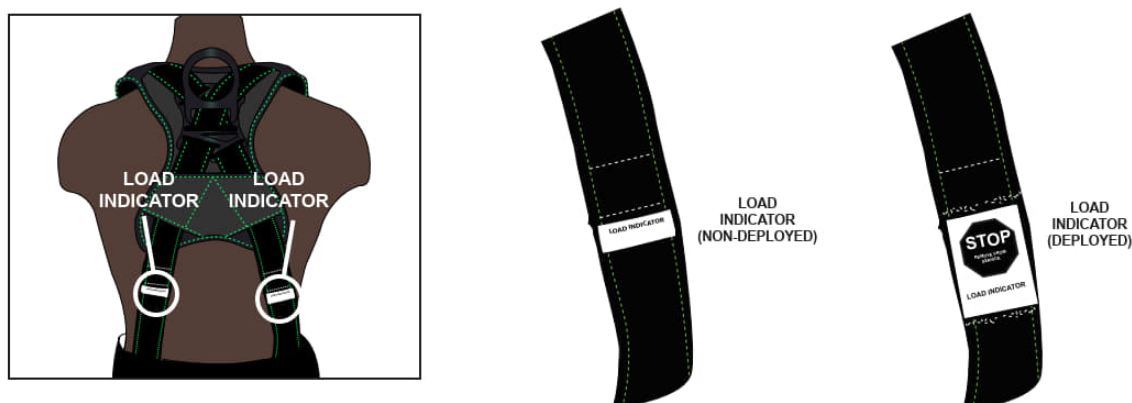
Proper fit of a Safewaze FBH is critical in ensuring the proper function of the harness and associated fall protection equipment in the event of a fall. Failure to properly size and fit a harness to the user can prevent the harness from performing in a manner that effectively protects the user. Figure 8 illustrates proper sizing of Safewaze FBHs based upon the users height and weight. This sizing is based upon average body dimensions. Sizing for each individual user should be verified through the donning of harness to ensure proper function and fit.

FIGURE 8 - HARNESS SIZING CHART



All Safewaze FBHs include sewn in Load Indicators which indicate if the harness has been subjected to fall arrest forces. The Load Indicators are located on the rear torso straps of the harness. Figure 9 indicates the Load Indicators in a Non-Deployed and Deployed status. Should pre-use or scheduled inspection(s) reveal that either of the Load Indicators are Deployed, the harness must be removed from service and destroyed. See Section 19.5 of this manual for disposal guidance.

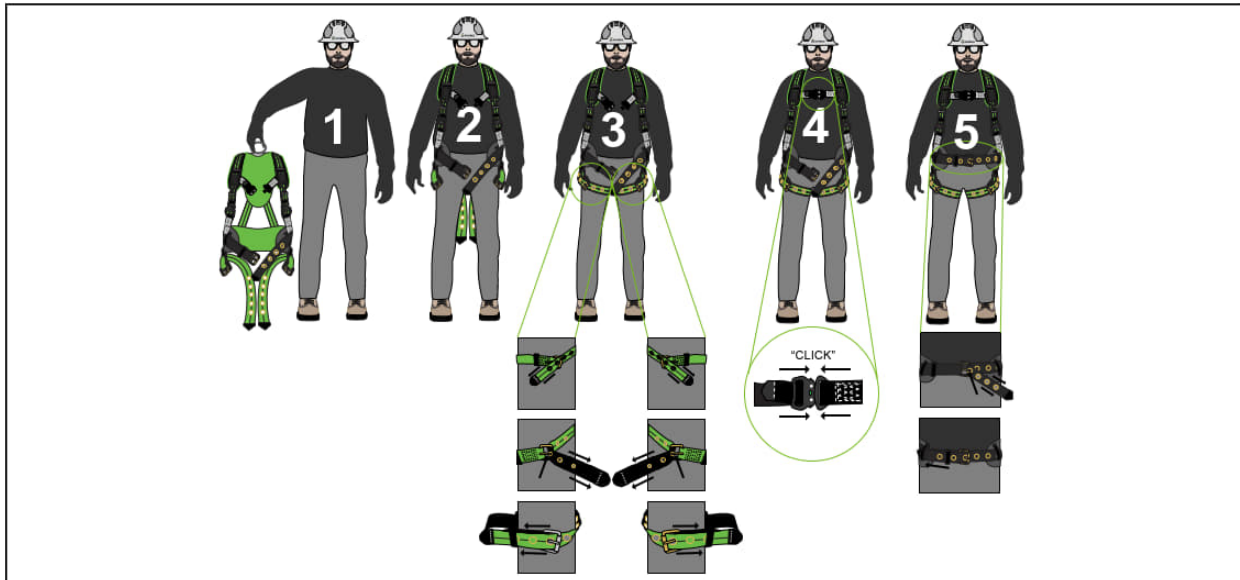
FIGURE 9 - FBH LOAD INDICATORS



15.0 DONNING AND ADJUSTING THE HARNESS

Safewaze harnesses are offered in a variety of configurations, which can include mating buckle or quick-connect buckles, and some styles which offer tongue buckle leg adjustment. The following sequence of steps in donning the harness are correct regardless of harness configuration. See Figure 10 for illustration of steps.

FIGURE 10 - HARNESS DONNING



Step 1: Disconnect chest and leg buckles. If so equipped, also disconnect the waist belt buckle. Hold the FBH by the dorsal D-ring allowing the harness to hang freely. Ensure that harness is not twisted or tangled.

Step 2: Slip arms in arm openings as you would if donning a vest.

Step 3: Adjust length of the leg straps to a point that will provide a snug fit. Connect the leg buckles (Mating Buckle or Quick Connect) and again ensure snug fit of the leg strap. In the event your harness is equipped with Grommet Legs, pull the free end of the webbing through the buckle assembly until proper fit is achieved. Insert the tongue of the buckle assembly through the leg strap grommet, and thread the free end of the leg strap through the plastic and web keepers to secure excess webbing.

Step 4: Adjust chest strap to a location just under the sternum. Shorten or lengthen the chest strap to provide a snug fit across the chest. Connect the chest buckle (mating buckle or quick-connect) and once again ensure proper placement and tension of the strap (See Figure 6 for mating buckle operation).

Step 5: If FBH is equipped with a waist belt, adjust length in same manner as tongue buckle legs and fasten for snug fit.

15.1 DON AND ADJUST CROSSOVER STYLE HARNESS

Step 1: Hold both shoulder straps of the harness in your left hand. Slide the shoulder straps over the left shoulder. With both straps still on the left shoulder, take the right shoulder strap and slide over top of head to right shoulder.

Step 2: The harness is properly positioned on the body when the head is centered between the shoulder pads with the fall arrest attachment positioned in the upper middle portion of the back, between the shoulder blades. The front attachment point should be centered on the sternum of the user.

Step 3: Connect leg buckles in the same manner as a standard Full Body Harness.

16.0 BWB INSTALLATION AND USE

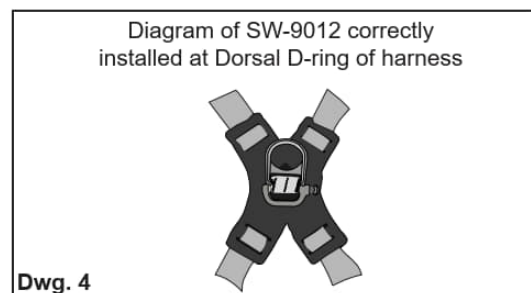
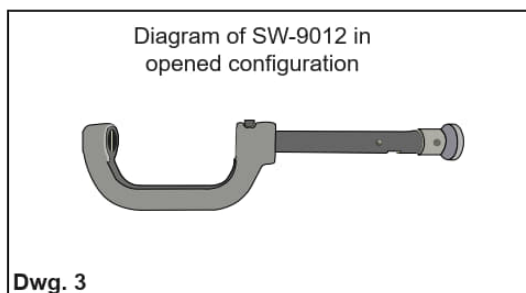
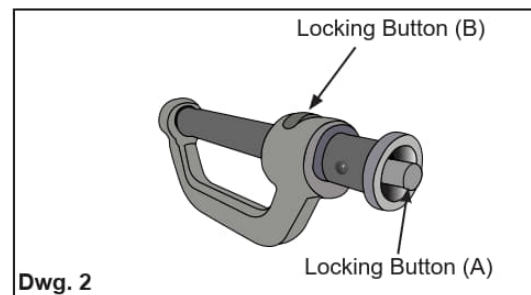
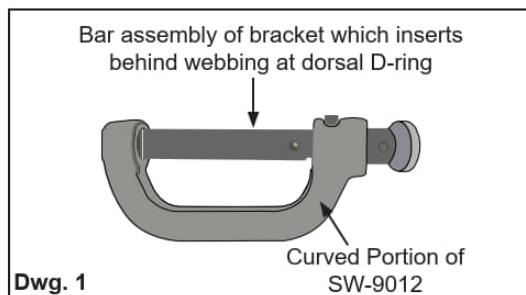
16.1 SW-9012 BEHIND THE WEB BRACKET

The SW-9012 comes fully assembled and ready for installation. No tools are required for installation of the bracket onto harness. Use the following instructions and Figure 11 to install the SW-9012 Behind the Web Bracket:

To Fasten To Harness:

1. Ensure that the curved portion of SW-9012 is in a downward orientation relative to the harness (See Figure 11, Dwg. 1).
2. Simultaneously depress both locking buttons (A) and (B) (See Figure 11, Dwg. 2) and slide the bracket open as indicated (See Figure 11, Dwg. 3).
3. With the bracket open, install dual leg retractables onto the bracket via the swivel tops of each. Swivels should be hanging on the curved portion of bracket.
4. While pressing in on locking button (A) slide the bar behind both loops of webbing at dorsal D-ring until the bar locks back into place.
5. Check the locking function of the bracket by attempting to slide the bracket open WITHOUT depressing locking buttons (A) or (B). Bracket bar should not move and the bracket is now locked into place.

FIGURE 11 - SW-9012 DUAL BRACKET INSTALLATION



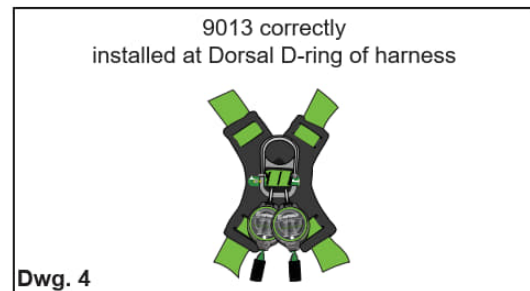
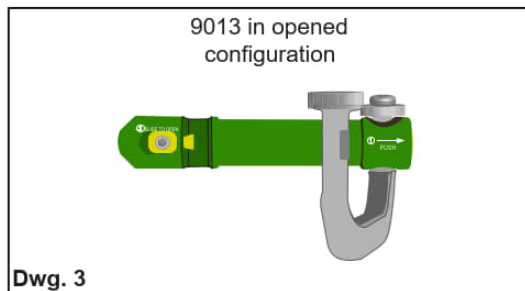
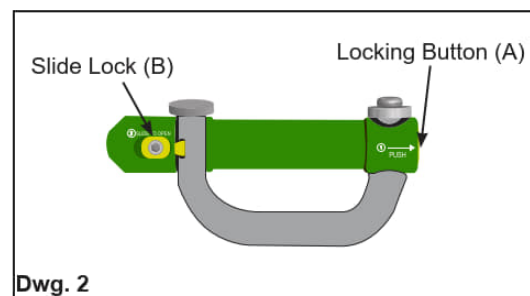
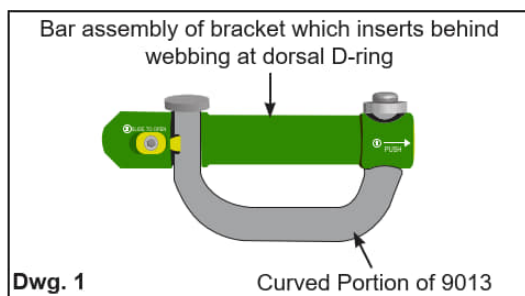
16.2 9013 BEHIND THE WEB BRACKET

The 9013 bracket comes fully assembled and ready for installation. No tools are required for installation of the bracket onto harness. Use the following instructions and Figure 12 to install the 9013 Behind the Web Bracket.

To Fasten To Harness:

1. Ensure that the curved portion of 9013 is in a downward orientation relative to the harness (See Figure 12, Dwg. 1).
2. Simultaneously depress both locking button (A) and and slide lock (B) (See Figure 12, Dwg. 2) to swing the bracket open (See Figure 12, Dwg. 3).
3. With the bracket open, install dual leg retractables onto the bracket via the swivel tops of each. Swivels should be hanging on the curved portion of bracket.
4. Slide the bar behind both loops of webbing at dorsal D-ring. Swing the bracket closed until it locks into place.
5. Check the locking function of the bracket by attempting to swing the bracket open WITHOUT depressing locking button (A) or slide lock (B). Bracket bar should not move and the bracket is now locked into place.
6. Dual leg retractables can be easily installed and removed from bracket by once again depressing both locking button (A) and slide lock (B), which allows bracket to swing open without complete removal from harness.

FIGURE 12 - 9013 DUAL BRACKET INSTALLATION



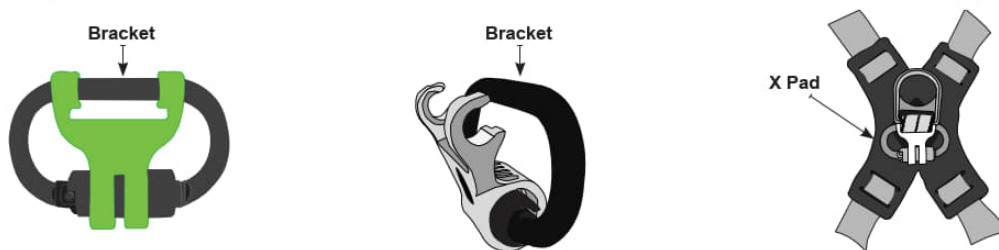
16.3 FS1014-TL-BLACK-BWB

The behind the web bracket comes fully assembled and ready for installation. No tools are required for installation of the bracket onto harness. Use the following instructions and Figure 13 to install the bracket:

To Fasten To Harness:

1. Unfasten the two small brackets on the green retractable spacer off of the carabiner.
2. Slide the green spacer around to the side of carabiner to allow opening of the carabiner gate.
3. Open the carabiner gate and slide spacer off of carabiner and remove one of the retractables.
4. Holding gate open on carabiner, insert the open end of carabiner through the webbing loops at Dorsal D-ring on the X Pad of harness. Ensure that both loops of webbing on X Pad are inside of carabiner.
5. With carabiner gate still open, slide the removed retractable and green spacer back onto carabiner and allow carabiner gate to close.
6. Slide the green retractable spacer back over the gate of carabiner and snap the two small brackets back into place on carabiner, with the web loops positioned between these two small brackets.

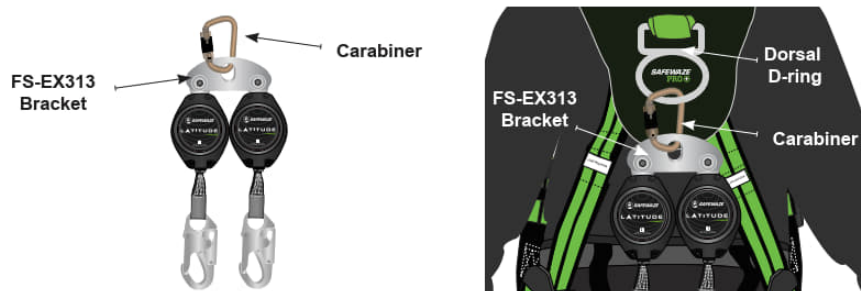
FIGURE 13 - FS1014-TL-BLACK-BWB INSTALLATION



16.4 FS-EX313 DUAL LEG BRACKET

If choosing a Dual Leg SRL equipped with the FS-EX313 Dual Leg Bracket, installation and removal is a quick and easy process. Units ordered with the FS-EX313 come fully assembled with the bracket attached to the SRLs. Simply attach the units to the dorsal D-ring of the harness with the provided double locking carabiner (See Figure 14).

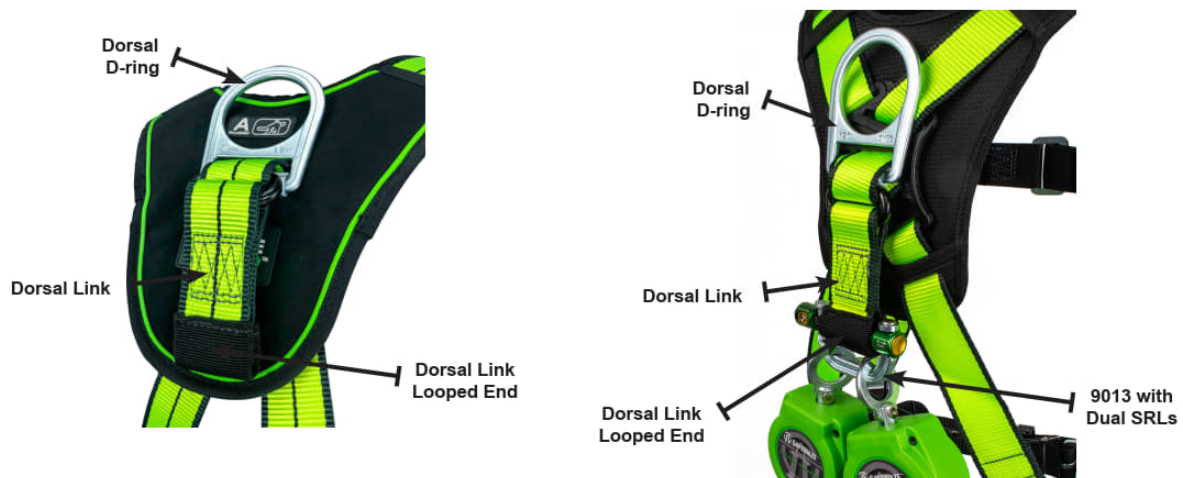
FIGURE 14 - FS-EX313 INSTALLATION



16.5 DORSAL LINK

Some models of the Safewaze FBH may include an integral Dorsal Link connection for installation of Dual SRLs. The Dorsal Link offers a simple connection for Dual Leg SRLs, while also acting as a Dorsal D-ring extender. Simply attach the Dual Leg SRLs to the looped end of the Dorsal Link with a dual leg bracket or double locking carabiner. Figure 15 illustrates the Dorsal Link, and attachment of dual leg SRLs.

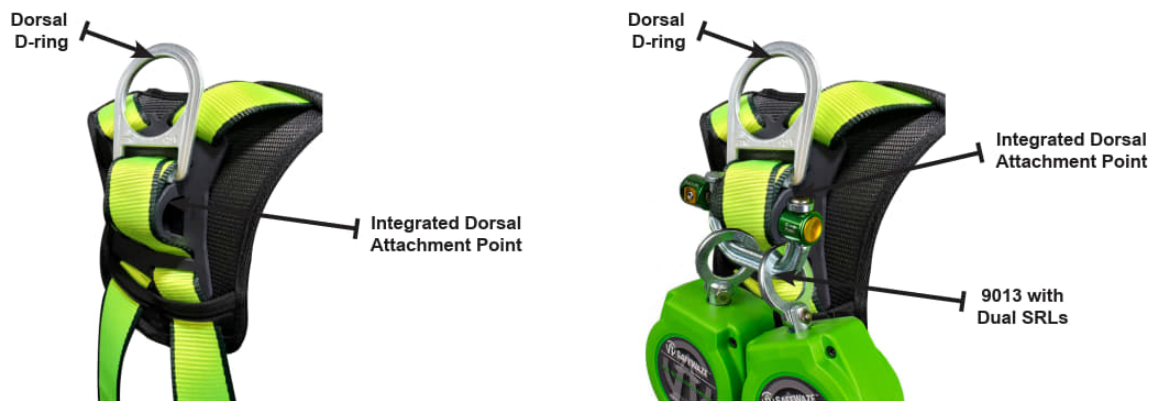
FIGURE 15 - DORSAL LINK SRL INSTALLATION



16.6 INTEGRATED DORSAL ATTACHMENT POINT (DAP)

The Integrated Dorsal Attachment Point (DAP) comes as standard equipment on certain Safewaze Harnesses. This enhanced Dorsal D-ring pad offers a quick and convenient connection of SRLs. Install the connector through the preformed DAP on the D-ring pad and lock closed as normal to secure. The DAP can be used with any of the Safewaze Behind the Web brackets. If using the FS1014-TL-BLACK-BWB with the DAP, the green retractable spacer clip is not required and should not be used. Figure 16 illustrates a typical DAP SRL attachment to the Full Body Harness.

FIGURE 16 - INTEGRATED DORSAL ATTACHMENT POINT SRL INSTALLATION



17.0 USE



WARNING: Contact Safewaze if you have questions, regarding compatibility of this equipment. Do not alter or misuse this equipment. Some subsystem components could affect the performance and the operation of this equipment. Do not connect this product to moving machinery, or hazards that include chemical, electrical or gaseous characteristics. Failure to comply with this warning could result in serious injury or death.



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 or minors must not use Safewaze FBH's. Failure to heed this warning may result in serious injury or death.

17.1 OPERATION

Inspect the FBH, as described in Section 19, before using the equipment. Refer to Figure 17 for the most common FBH connections. Ensure connections are compatible in size, shape, and strength. Ensure hooks are fully closed and locked.

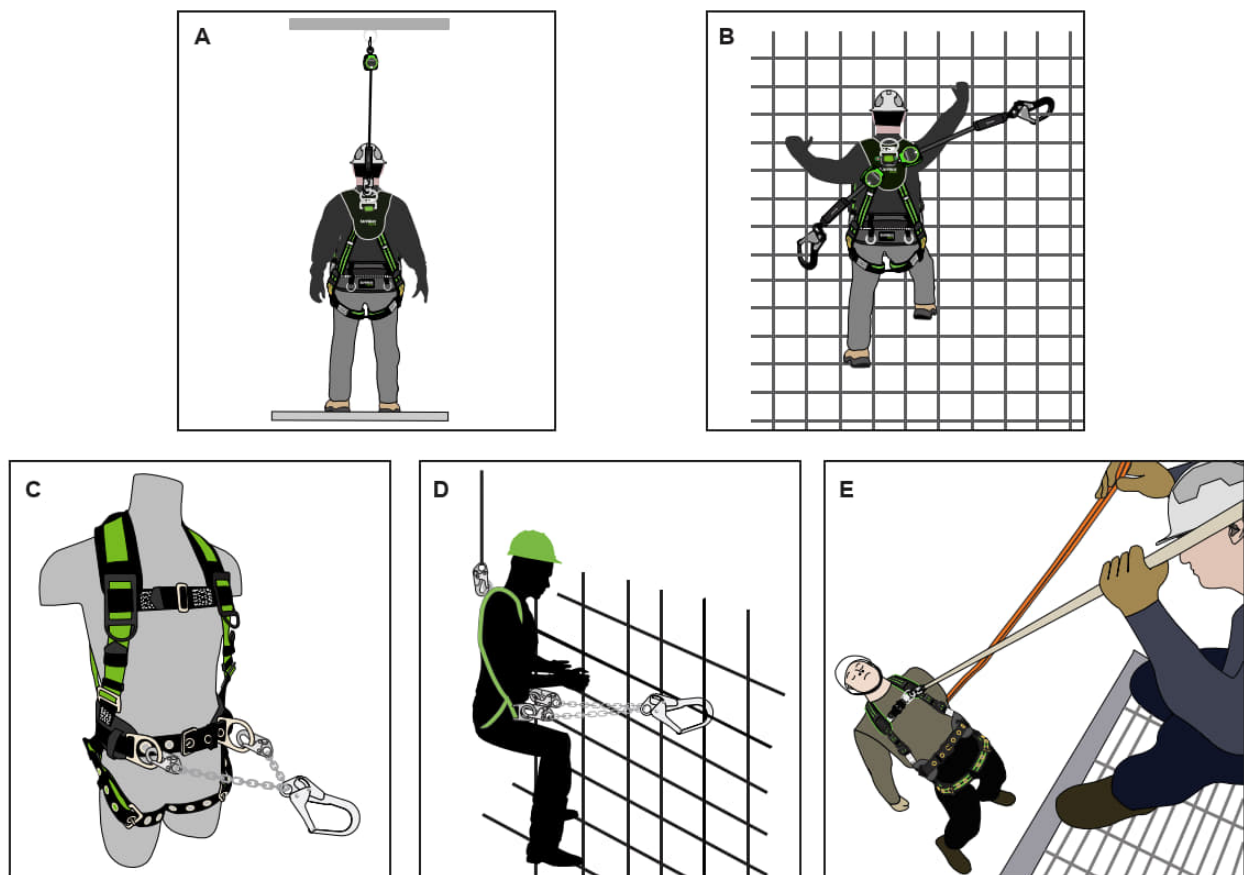
17.2 AFTER A FALL

Should the Safewaze Body Harness be exposed to an the force of a fall, or shows damage consistent with the effects of a fall, it must be IMMEDIATELY removed from service. Equipment must then be disposed of (See Section 19.5).

17.3 HARNESS CONNECTIONS

Figure 17 illustrates typical harness connections when working at heights, including work positioning and rescue operations. When using a snap hook to make a connection, ensure roll-out cannot occur (See Figure 4). Do not use snap hooks or carabiners that will not completely close over the anchor point. This includes traditional overhead anchor point tie off, SRL housing attachment to dorsal D-ring, and 100% tie off. Follow the manufacturer's instructions supplied with each system component.

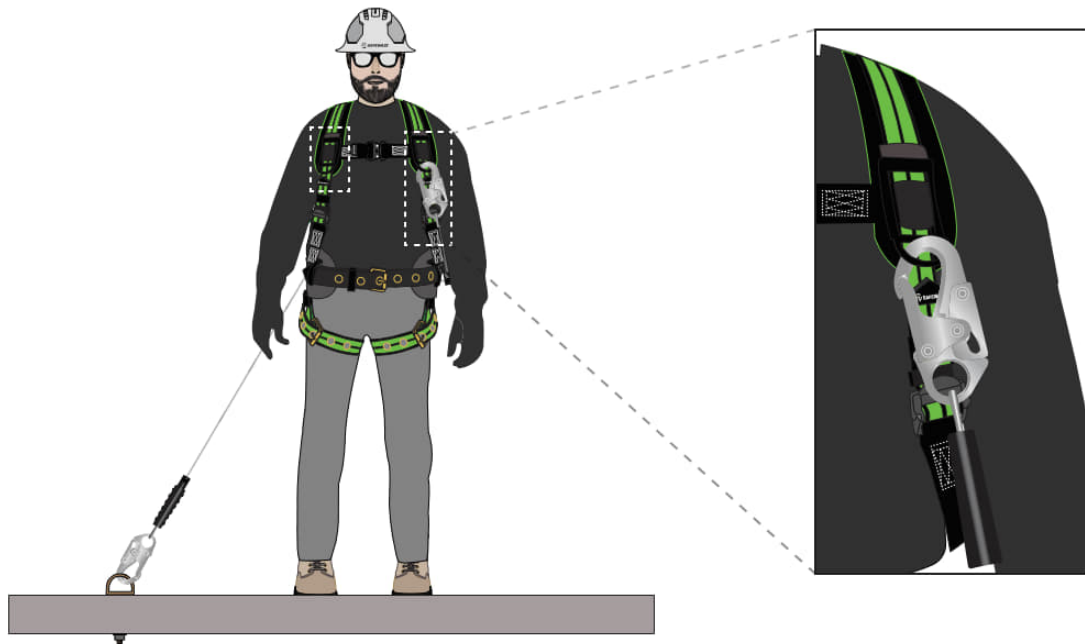
FIGURE 17 - TYPICAL HARNESS CONNECTIONS



17.4 LANYARD KEEPER

Certain projects may require the use of a dual leg lanyard or SRL. If using a dual leg device, the user must ensure that the unused leg of the Lanyard/SRL is properly stowed when not actively in use. Safewaze Full Body Harnesses are equipped with two lanyard keepers (one on each torso strap). These lanyard keepers provide a location to attach the unused Lanyard/SRL leg. Proper use of the lanyard keepers ensures that the unused leg of the device remains easily accessible to the user, as well as keeping it clear of ongoing work operations. Figure 18 indicates the location of the lanyard keepers and an example of proper use.

FIGURE 18 - LANYARD KEEPERS



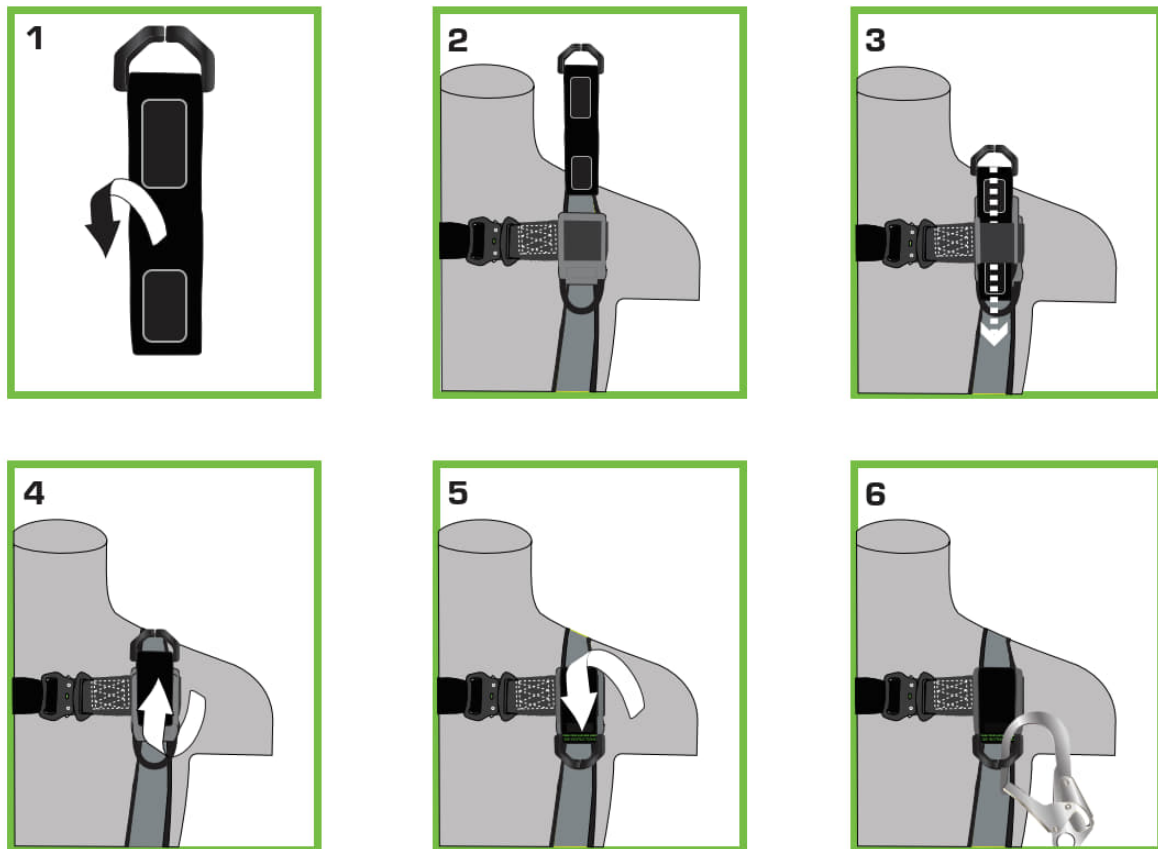
17.5 REPLACABLE / REUSABLE LANYARD KEEPER

Full Body Harness mounted Lanyard Keepers are designed to break away in the event of a fall. If the unused lanyard leg becomes caught during the fall, the Lanyard Keeper will break away. This prevents forces from the tightening of the lanyard from transferring to the Full Body Harness and the user wearing it. In the event that a Lanyard Keeper is damaged or broken, Safewaze offers an easily installed replacement Lanyard Keeper (Part# 021-9038). Figure 19 illustrates installation of the replacement Lanyard Keeper onto a typical Safewaze FBH.

To Fasten To Harness:

1. Grasp replacement Lanyard Keeper webbing and pull apart to open webbing to full length (See Figure 19, Dwg. 1).
2. Take the free end of the Lanyard Keeper webbing and position it above the existing Lanyard Keeper (See Figure 19, Dwg. 2).
3. Insert the free end of the webbing behind the web loop and pull downward until new Lanyard Keeper is centered behind the web loop (See Figure 19, Dwg. 3).
4. Fold the bottom section of the Lanyard Keeper webbing upward and re-attach to the opposite end of the webbing via the hook and loop fasteners (See Figure 19, Dwg. 4).
5. Rotate the Lanyard Keeper in a downward motion until the plastic loop is in the correct orientation (See Figure 19, Dwg. 5).
6. Park lanyard hardware as needed (See Figure 19, Dwg. 6).

FIGURE 19 - REPLACEABLE / REUSABLE LANYARD KEEPERS INSTALLATION



18.0 MAINTENANCE, CLEANING, & STORAGE

18.1 MAINTENANCE

Remove the Safewaze FBH from use if the FBH has been subjected to fall arrest forces or inspection reveals an unsafe or defective condition. If unsafe or defective condition is found, dispose of the FBH as recommended in section 19.5.

18.2 CLEANING

Cleaning procedures for Safewaze FBH's are as follows:

If webbing becomes soiled or requires cleaning, use water and a mild soap solution.

Clean labels to maintain legibility.

Hang FBH and allow to fully dry before using. Do not dry the harness in a commercial type dryer, or use heated air to dry.

18.3 STORAGE

Store Safewaze FBHs in a cool, dry, clean environment out of direct sunlight. Avoid areas where chemical vapors may exist. Thoroughly inspect the FBH after any period of extended storage.

19.0 INSPECTION

19.1 BEFORE EACH USE

Inspect the webbing of the harness for cuts, frays, broken stitching, damage from heat or chemical exposure, or other defects related to excessive wear or abrasion.

Inspect the harness for indications that it has been exposed to fall arrest forces. All Safewaze FBH's are equipped with two load indicators (one on each back torso strap). If either of the load indicators have been deployed (See Figure 9) remove the FBH from service and dispose of as described in Section 19.5.

Inspect FBH labeling to ensure that they are legible and present on the harness. If any labeling is illegible, or missing, remove the FBH from service.

19.2 INSPECTION FREQUENCY

In addition to inspection prior to each use, the FBH must be inspected annually by a competent person other than the user. Severe or harsh environments may require more frequent inspections.

19.3 UNSAFE OR DEFECTIVE CONDITIONS

Figure 20 shows examples of equipment damage. Equipment inspectors must be trained to look for damage to components of the FBH as illustrated in Figure 20, as well as other damage that may occur. If inspection reveals an unsafe or defective condition remove the FBH from service.

FIGURE 20 - EXAMPLES OF EQUIPMENT DAMAGE

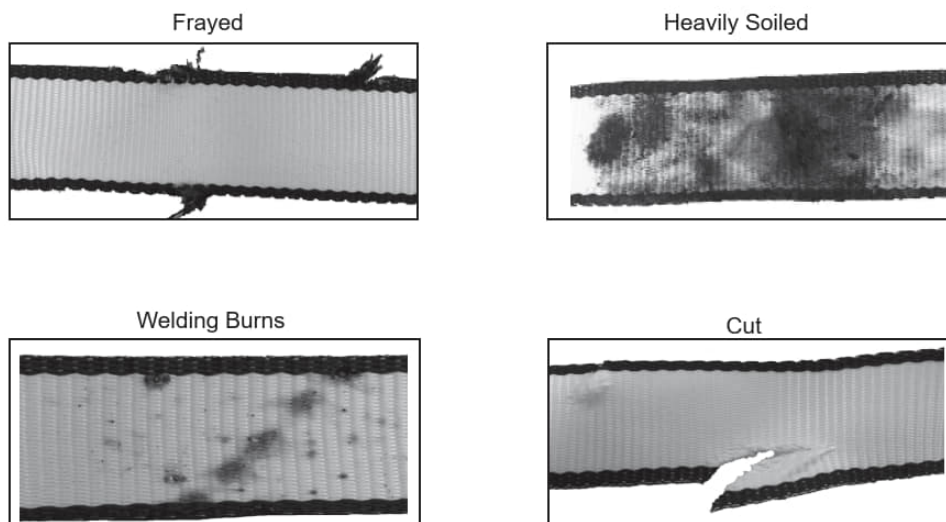
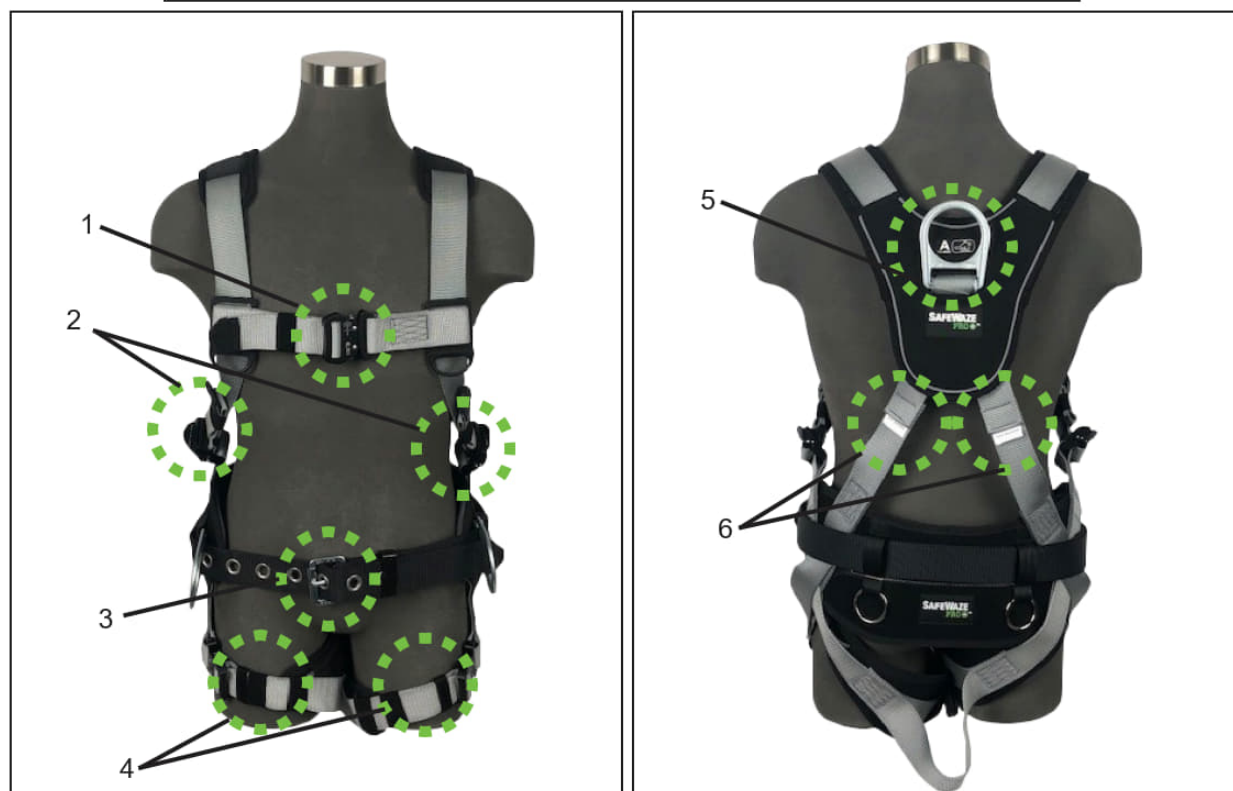


FIGURE 21 - INSPECTION DIAGRAMS



1. Inspect chest strap to include stitching and buckle assembly. Ensure no stitches are broken, frayed, or cut. Inspect that buckle assembly functions properly and does not display any excessive corrosion. Inspect all harness webbing and stitching for possible damage or defects.
2. Inspect sizing adjusters for proper function and ensure correct sizing of harness for use.
3. If so equipped, inspect belt assembly for proper function of buckle and ensure that no excessive corrosion exists.
4. Inspect leg straps for proper function of buckles and if any excessive corrosion is present. If leg straps are grommet style, ensure that no grommets are loose or missing.
5. Inspect dorsal D-ring assembly. Ensure that dorsal D-ring has no excessive corrosion and that web loop is intact with no cuts, fraying, or damage.
6. Check that load indicators are present on harness and non-deployed.
(See Figure 9 for example of deployed load indicator)

19.4 PRODUCT LIFE

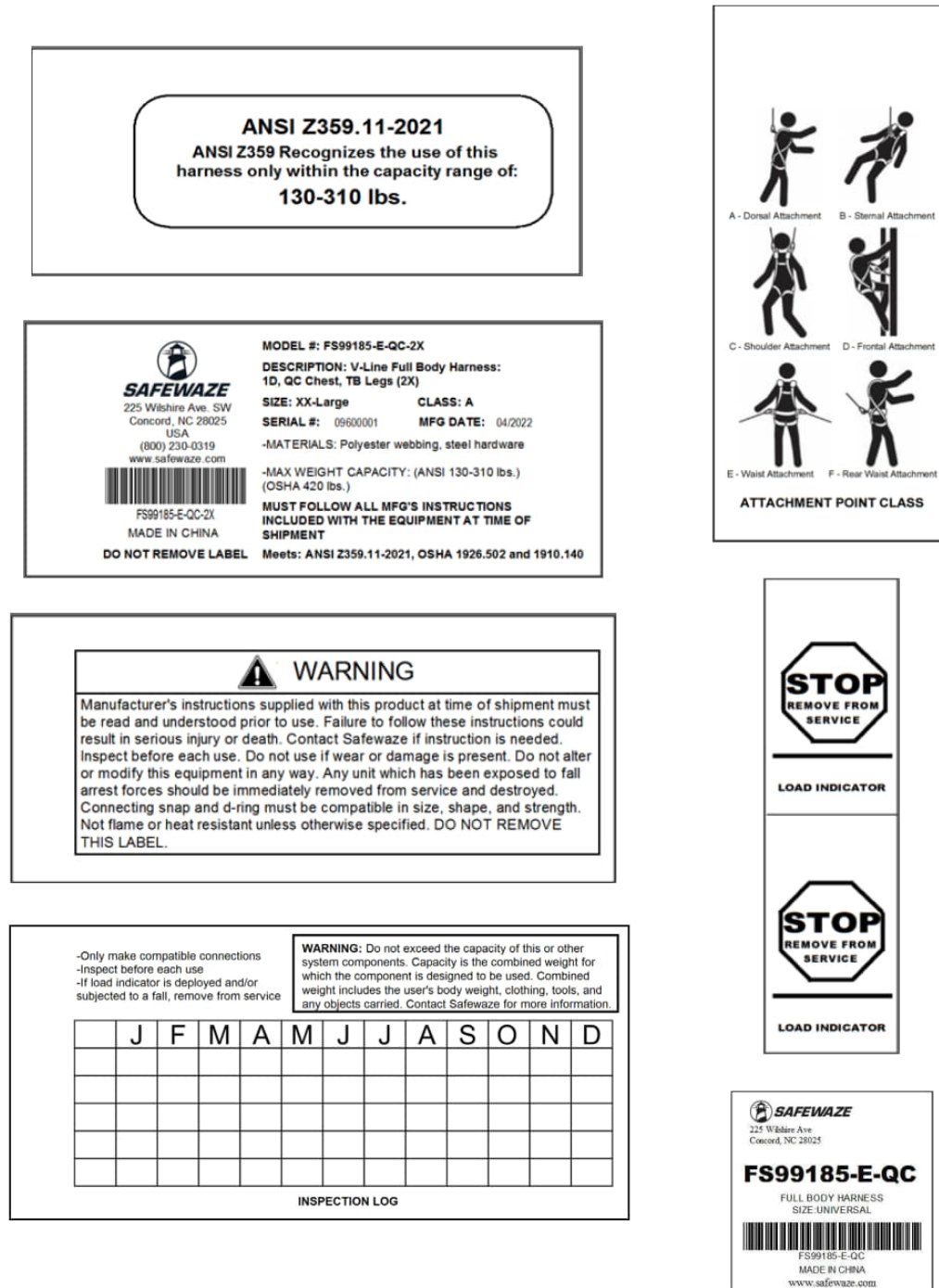
The working life of Safewaze FBH's are determined by work conditions, care and inspection provided. As long as the FBH passes inspection, it may remain in service.

19.5 DISPOSAL

Dispose of the Safewaze FBH if it has experienced fall arrest forces or inspection reveals an unsafe or defective condition. Before disposing of the FBH, cut the harness into separate sections to prevent future use.

20.0 LABELING

FIGURE 22 - LABEL EXAMPLES



21.0 INSPECTION FORM

Product lifetime is indefinite as long as it passes pre-use and Competent Person inspections. User must inspect prior to each use. Competent Person other than the user must complete formal inspection at least annually.



INSPECTION FORM

HARNESSES

Manufacturer: _____

Model Number: _____

Description: _____

Serial Number: _____

Lot Number: _____

Date of Manufacture: _____

Company: _____

Name of Inspector: _____

Signature: _____

Date of Inspection: _____

In-Service Date: _____

Harness Configuration: Chest Strap ☐ PT ☐ TB ☐ Leg Straps ☐ PT ☐ TB ☐ Waist Belt ☐ Yes ☐ No ☐

LABELS & MARKINGS	PASS	FAIL	NOTE
Label (Intact and Legible)			
Appropriate ANSI / OSHA / CSA Markings			
Inspections are Current / Up-to-Date			
Date of First Use			
Impact / Fall Indicators Not Deployed			

HARDWARE (Buckles & D-Rings)	PASS	FAIL	NOTE
Signs of Deformity or Damage			
Proper D-ring attachment and operation			
All Buckles Undamaged and Operational			
Corrosion / Pitting / Nicks			
Ensure Grommets are Secure / Do Not Move			

WEBBING	PASS	FAIL	NOTE
Shoulder / Chest / Leg / Back Straps			
Cuts / Burns / Holes			
Paint Contamination			
Excessive Wear			
Heat / UV Damage			

STITCHING	PASS	FAIL	NOTE
Shoulder / Chest / Leg / Back Straps			

PRO+ CONSTRUCTION HARNESS



PRO+ FULL BODY HARNESS



NOTES



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**If equipment fails inspection
IMMEDIATELY REMOVE FROM SERVICE**

PART NUMBERS COVERED IN THIS MANUAL

018-1000	019-1068	020-1212	020-1371	021-1460	021-1522	021-1612	021-1796
018-1001	019-1069	020-1213	020-1372	021-1461	021-1523	021-1613	021-1797
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018-1003	019-1071	020-1215	020-1374	021-1463	021-1525	021-1618	021-1799
018-1004	019-1072	020-1216	020-1375	021-1464	021-1526	021-1619	021-1802
018-1005	019-1073	020-1217	020-1380	021-1465	021-1528	021-1620	021-1803
018-1006	019-1074	020-1218	020-1381	021-1466	021-1529	021-1621	021-1804
018-1007	020-1143	020-1220	020-1382	021-1467	021-1530	021-1624	021-1805
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FS170-4X	FS185DL-FD-S/M	FS280-L/XL	FS77425-X-WE-L/XL	FS-FLEX253-CE-L	FS-FLEX360-L
FS170-CECO-2XL	FS185DL-FD-XS	FS280-QC-2X	FS77425-X-WE-S/M	FS-FLEX253-CE-M	FS-FLEX360-M
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FS170-CECO-M	FS185DL-XS	FS280-QC-S/M	FS77426-WE-4X	FS-FLEX253-FD-2XL	FS-FLEX360-SL-L
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FS170-CECO-XS	FS185-FD-4X	FS281-2X	FS77426-WE-XS	FS-FLEX270-3X	FS-FLEX360-SL-XL
FS170DL-2X	FS185-FD-L/XL	FS281-3X	FS77635-OD-L/XL	FS-FLEX270-4X	FS-FLEX360-XL

PART NUMBERS COVERED IN THIS MANUAL

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FS-HIVIS185-2X	SW-62160-L	021-1750	023-1227		
FS-HIVIS185-L/XL	SW-62160-M	021-1751	023-1228		
FS-HIVIS185-S/M	SW-62160-S	021-1752	023-1229		
FS-RTZ170-L	SW-62160-XL	021-1753	023-1230		
FS-RTZ170-M	SW-6510-VI-2XL	021-1756	023-1231		
FS-RTZ170-S	SW-6510-VI-L/XL	021-1757	023-1232		
FS-RTZ170-XL	SW-6510-VI-S/M	021-1758	023-1233		
SW160-QC-2X	SW-6511-VI-2XL	021-1759	023-1234		
SW160-QC-3X	SW-6511-VI-L/XL	021-1762	023-1235		
SW160-QC-L	SW-6511-VI-S/M	021-1763	023-1236		
SW160-QC-M	SW99280-E-US	021-1764	023-1237		
SW160-QC-S	SW99280-HW	021-1765	023-1238		
SW160-QC-XL	SW99281-E-US	021-1768	023-1239		
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SW170-QC-S	022-1098	022-1077	023-1246		
SW170-QC-XL	022-1099	022-1079	023-1247		
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SW280-QC-4X	021-1716	021-1774	023-1251		
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SW-52160-M	021-1740	022-1912	023-1267		
SW-52160-S	021-1741	022-1913	023-1268		
SW-52160-XL	022-1069	022-1914	023-1269		
SW-6210-M/L	022-1070	022-1915	023-1270		
SW-6210-S	022-1071	022-1950	FS77326-FR-XS		
SW-6210-XL-2XL	022-1072	022-1951			
SW-6211-M/L	021-1744	022-1952			
SW-6211-S	021-1745	022-1953			
SW-6211-XL/2XL	021-1746	022-1954			

Cross Arm Strap/Cable Choker

Instruction Manual



WARNING
The product is part of a personal fall arrest system. The manufacturer's instructions must be followed to ensure the system is used properly. The user must read and understand these instructions before using the equipment. Manufacturer's instructions must be followed for proper use and maintenance of the equipment. Disobedience to the product instructions of the product or failure to follow instructions may result in serious injury or death.

IMPORTANT
Questions regarding the use, care, or suitability of this equipment for your application. Contact SAFEWAZE™.

IMPORTANT
Read and understand the information before using the product. Identification information may be found on the equipment label page. This information should be retained in the "Inspection Log" located at the back of the manual.

OSHA 1926 Subpart K, OSHA 1910.66, ANSI Z359.1, ANSI Z359.2, ANSI A10.32-2012
This manual is intended to meet the manufacturer's instructions as required by ANSI and should be used as part of an employee training program as required by OSHA.

User Information

Date of First Use: _____

Serial#: _____

Trainer: _____

User: _____

Do not throw away these instructions!
Read and understand these instructions before using equipment

INTRODUCTION
Thank you for purchasing an SAFEWAZE™ fall protection Cross Arm Strap / Cable Choker. This manual must be read and understood in its entirety, and used as part of an employee training program as required by OSHA or any applicable state agency.

This manual and any other instructional material must be available to the user of the equipment. The user must understand how to safely and effectively use their Cross Arm Strap / Cable Choker, and all fall protection equipment used in conjunction with the Cross Arm Strap / Cable Choker.

APPLICABLE SAFETY STANDARDS
When used according to instructions, Cross Arm Straps / Cable Chokers included in this manual meet all applicable ANSI Z359 standards and OSHA regulations for fall protection. Applicable standards and regulations depend on the type of work being done, and may include state-specific regulations. Refer to local, state, and federal (OSHA) requirements for additional information concerning the governing of occupational safety regarding Personal Fall Arrest Systems (PFAS).

WORKER CLASSIFICATIONS
Understand the definitions of those who work in proximity of or may be exposed to fall hazards.

Qualified Person: "Qualified" means one who, by possession of a recognized degree, certificate, or professional standing, or who by extensive knowledge, training, and experience, has successfully demonstrated his ability to solve or resolve problems relating to the subject matter, the work, or the project.

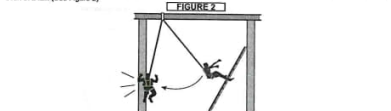
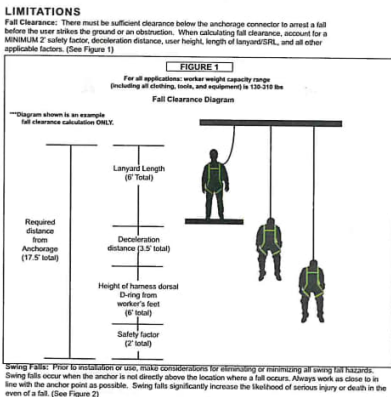
Competent Person: "Competent person" means one who is capable of identifying existing and predictable hazards in the surroundings or working conditions which are unsanitary, hazardous, or dangerous to employees, and who has authorization to take prompt corrective measures to eliminate them.

Authorized Person: "Authorized person" means a person approved or assigned by the employer to perform a specific type of duty or duties or to be at a specific location or locations at the job site.

It is the responsibility of a Qualified or Competent person to supervise the job site and ensure safety regulations are complied with.

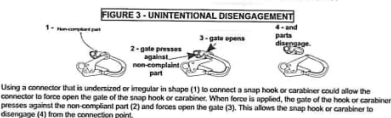
PRODUCT SPECIFIC APPLICATIONS
Purpose: The SAFEWAZE™ FPS, Extreme, and V-Line series of Cross Arm Straps / Cable Chokers are designed to be used as part of a Personal Fall Arrest System (PFAS).

- A competent person shall train users on this equipment in accordance with OSHA and ANSI.
- Never exceed a free fall distance of 6 ft. A free fall of more than 6 ft could cause excessive arrest forces that could result in serious injury or death.
- All SAFEWAZE™ Cross Arm Straps / Cable Chokers have a maximum capacity of 310 lbs including any tools, clothing, accessories, etc., unless otherwise rated by SAFEWAZE™.
- Anchoring for attachment of SAFEWAZE™ Cross Arm Straps / Cable Chokers shall support a minimum of 5,000 lbs or be designed with a safety factor of two by a Qualified Person.
- All SAFEWAZE™ Cross Arm Straps / Cable Chokers must IMMEDIATELY be removed from service if subjected to fall arrest forces.
- SAFEWAZE™ Cross Arm Straps / Cable Chokers shall be inspected by the end user prior to each usage and by a Competent Person other than the user at least annually. These annual inspections shall be documented.



COMPATIBILITY OF CONNECTORS
Connectors are compatible with connecting elements when they have been designed to work together in such a way that their sizes and shapes do not cause their gate mechanisms to inadvertently open regardless of how they become oriented. Connectors (hooks, carabiners, and D-rings) must be capable of supporting at least 5,000 lbs. use equipment that is not compatible. Non-compatible connectors may unintentionally disengage (see Figure 3). Connectors must be compatible in size, shape, and strength. Self-locking snap hooks and carabiners are required by ANSI Z359 and OSHA guidelines. Contact SAFEWAZE™ if you have any questions about compatibility.

NOTE: SOME SPECIALTY CONNECTORS HAVE ADDITIONAL REQUIREMENTS. CONTACT SAFEWAZE™ WITH QUESTIONS.

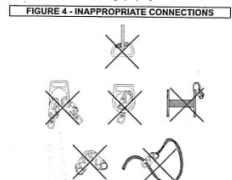


MAKING CONNECTIONS
Snap hooks and carabiners used with this equipment must be double locking and/or twist lock. Ensure all connectors are compatible in size, shape and strength. Do not use equipment that is not compatible. Ensure all connectors are fully closed and locked.

SAFEWAZE™ connectors (snap hooks and carabiners) are designed to be used only as specified in each product's user's instructions. See figure 4 for examples of inappropriate connections. Do not connect snap hooks and carabiners in a manner that would result in a load on the gate (with the exception of tie back hooks). NOTE: Large snap hook must not be connected to objects which will result in a load on the gate if the hook twists or rotates. Snap hooks marked with ANSI Z359.1 or ANSI Z359.12 and are equipped with a 3,600 lb (16 kN) gate. Check the marking on your snap hook to verify its compatibility.

NOTE: Large throat snap hooks must 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, unless the snap hook complies with ANSI Z359.1 or ANSI Z359.12 and is equipped with a 3,600 lb (16 kN) gate. Check the marking on your snap hook to verify that it is appropriate for your application.

- In a false engagement, where features that preclude from the snap hook or carabiner catch on the anchor, and without visual confirmation seems to be fully engaged to the anchor point.
- To each other.
- By wrapping the web lifeline around an anchor and securing to lifeline except as allowed for Tie Back models (see section 4.5).
- To any object which is shaped or sized in a way that the snap hook or carabiner will not close and lock, or that roll-out could occur.
- In a manner that does not allow the connector to align properly while under load.



INSTALLATION AND USE
Place Cross Arm Strap / Cable Choker over compatible structural anchor. Labels MUST face out. For Cross Arm Straps, structural anchor MUST NOT have sharp or abrasive edges or surfaces. Cable chokers are designed to resist wear resulting from contact with sharp or abrasive edges or surfaces, but this contact should be minimized as much as possible.

For Cross Arm Straps / Cable Chokers with large and small D-rings, or with web loop and D-ring, pass small D-ring through large D-ring / web loop, and pull until strap is taut. Cross Arm Strap / Cable Choker may be looped around structural anchor multiple times to reduce excess length. Pass through large D-ring / web loop each time Cross Arm Strap / Cable Choker is wrapped around anchorage.

For Cable Choker with snap hook ends, connect snap hook directly to cable. NEVER attach snap hook directly to cable thimble eye or other snap hook.

For choker cable with thimble ends, connect thimble ends with compatible carabiner.

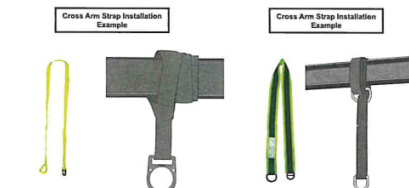
Connect complete and compatible PFAS to small D-ring, or to cable if applicable. NEVER make connections to large D-ring or web loop. NEVER make more than one attachment per connection point.

PRODUCT SPECIFIC APPLICATIONS

Personal Fall Arrest: SAFEWAZE™ Cross Arm Straps / Cable Chokers may be used to support MAXIMUM of 1 PFAS for use in Fall Arrest Applications. The structure to which lanyard is attached must withstand loads applied in the directions permitted by the system of at least 5,000 lbs. Maximum allowable free fall is 6'.

Restraint: External Shock, Internal Shock, and Positioning Lanyards are authorized for use in Restraint applications. Restraint systems prevent workers from reaching the leading edge of fall hazard. User must always account for fully deployed length of lanyard/SRL. The structure is permitted by the system of at least 5,000 lbs. NO free fall is permitted. Restraint systems may be used on surfaces with slopes up to 4 / 12 (vertical / horizontal).

All above referenced applications have a worker weight capacity range of 310 lbs (including all clothing, tools, and equipment).



- Users should minimize their desire to verify ability to safely above the forces of a fall arrest event. Fitness level, age, and other health conditions can greatly affect an individual's ability to withstand a fall arrest. Women who are pregnant, individuals with heart conditions, or those taking certain medications, should not be used in fall arrest.
- **Never** allow any part of a lanyard or attached components, **SAFESAVE™** must be held under tension at all times. **SAFESAVE™** must be used in accordance with the manufacturer's instructions for fall arrest or death due to tampering.
- **Cross Arm Straps / Cable Carriers** that are exposed to full arrest forces **MUST** be **IMMEDIATELY** removed from service and destroyed.
- Failure to follow these instructions and warnings could result in serious injury or death in the event of a fall.
- A preplanned rescue procedure in the event of a fall is required. The rescue plan must be specific to the project. The rescue plan must allow for employees to rescue themselves, or to be promptly rescued by alternative means.
- Harnesses or connectors selected for use with any **SAFESAVE™** Cross Arm Strap / Cable Carrier must be compatible in size and configuration. User must ensure compatibility of snaphooks, carabiners, and connectors. A connector which could allow disengagement must be eliminated. Snaphooks and carabiners must be self locking and self closing and must never be hooked in each other.
- A Competent Person must conduct an analysis of the workplace and anticipate where workers will fall and the route they will take to reach the work, and the existing and potential fall hazards they may be exposed to. The Competent Person must choose the fall protection equipment to be utilized.
- Do not misuse equipment.
- Equipment designed for full protection must never be used in lift, hang, support or hoist applications.

- **SAFEWAZE™** Cross Arm Straps / Cable Chokers shall be inspected prior to each use by the user and at least annually by a Competent Person. Annual inspections shall be documented. Severity of conditions during use may necessitate increased frequency of documented inspections.
- Cross Arm Straps / Cable Chokers that fail inspection **MUST** be removed from service and destroyed immediately.
- All components of the Cross Arm Strap / Cable Choker shall be inspected. Hardware inspection will include all Snap Hooks, D-rings, Web, Adjusters, and Rope or Cable (if applicable).
- Snap Hooks, D-rings, and Adjusters should have smooth surfaces with no indication of corrosion or damage that could negatively impact harness webbing.

Cross Arm Strap Webbing/Cable Choker, Snap Hooks, D-rings, adjusters, and other components must be inspected for:

1. Excessive Wear
2. Cuts
3. Abrasions
4. Undue Stretching
5. Chemical Exposure
6. Burns or Excessive Heat
7. Welding Spatter
8. Mold or Mildew
9. Broken Stitches
10. Alterations and Additions
11. Rust, Oxidation, or Corrosion
12. Legibility of Labeling
13. Deformation
14. Discoloration or Abused Appearance

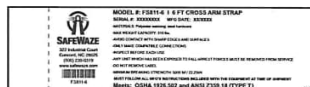
IF ANY OF THESE CONDITIONS EXIST, LANYARD MUST BE REMOVED FROM SERVICE

SAFEWAZE™ Cross Arm Straps / Cable Chokers can be cleaned with water and mild soap and hung to air dry. Do not use chemical cleaners, harsh detergents, or solvents. Do not dry with heat.

Hardware can be wiped off with a clean, dry cloth.

SAFEWAZE™ Cross Arm Straps / Cable Chokers should be stored in a cool, dry, and clean environment. Do not store in direct sunlight or where chemical vapors could come in contact with the equipment.

SAFEWAZE™ warrants its products are free from defects in materials and construction under normal use and service. Liability is not accepted for abuse, modification, improper use, destructive activity and contaminated exposure.

[illegible][illegible][illegible]

SAFEWAZE™
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Concord, NC 28025

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EMAIL: info@safewaze.com

Web: safewaze.com

D-Ring Extender Instruction Manual



D-ring Extender Manual



Part Number	Description	ANSI Standard	OSHA Regulation	Weight Capacity
019-2008	18" D-ring Extender: Soft Loop, 2 D-rings	Z359.11-2021	1926.502 1910.140	ANSI 130-310 lbs., OSHA up to 420 lbs.
019-2022	12" D-Ring Extender w/ Soft Loop	Z359.11-2021	1926.502 1910.140	ANSI 130-310 lbs., OSHA up to 420 lbs.
020-2051	18" D-Ring Extender, Orange	Z359.11-2021	1926.502 1910.140	ANSI 130-310 lbs., OSHA up to 420 lbs.
020-2052	18" Dual D-Ring Extender, D-RING & 2 Snap Hooks	Z359.11-2021	1926.502 1910.140	ANSI 130-310 lbs., OSHA up to 420 lbs.
020-2053	18" D-Ring Extender, Loop, Aluminum D-ring	Z359.11-2021	1926.502 1910.140	ANSI 130-310 lbs., OSHA up to 420 lbs.
021-2074	18" D-ring Extender: Alu Rebar Hook, D-ring	Z359.11-2021	1926.502 1910.140	ANSI 130-310 lbs., OSHA up to 420 lbs.
022-2080	12" Arc Flash D-Ring Extender w/ Soft Loop	Z359.11-2021	1926.502 1910.140	ANSI 130-310 lbs., OSHA up to 420 lbs.
022-2081	18" Arc Flash D-Ring Extender: Soft Loop, D-ring	Z359.11-2021	1926.502 1910.140	ANSI 130-310 lbs., OSHA up to 420 lbs.
FS813	18" D-Ring Extender: Snap Hook, D-ring	Z359.11-2021	1926.502 1910.140	ANSI 130-310 lbs., OSHA up to 420 lbs.
FS813-24	24" D-Ring Extender, Snap Hook	Z359.11-2021	1926.502 1910.140	ANSI 130-310 lbs., OSHA up to 420 lbs.
FS813-2D	18" D-Ring Extender: Snap Hook, 2 D-rings	Z359.11-2021	1926.502 1910.140	ANSI 130-310 lbs., OSHA up to 420 lbs.
FS813-LOOP	18" D-Ring Extender: Soft Loop, D-ring	Z359.11-2021	1926.502 1910.140	ANSI 130-310 lbs., OSHA up to 420 lbs.
FS814	18" D-ring Extender: Rebar Hook, D-ring	Z359.11-2021	1926.502 1910.140	ANSI 130-310 lbs., OSHA up to 420 lbs.

WARNING



This product is part of a personal fall arrest, work positioning, or rescue system. The manufacturer's instructions must be provided to users of this equipment. The user must follow the manufacturer's instructions for each component of the system. The user must read and understand these instructions before using this equipment. Manufacturer's instructions must be followed for proper use and maintenance of this equipment. Alterations to this product, misuse of this product, or failure to follow instructions may result in serious injury or death.



IMPORTANT

Questions regarding the use, care, or suitability of this equipment for your application? Contact Safewaze.



IMPORTANT

Record identification information before using this product. Identification information may be found on the equipment label (See Figure 10). This information should be recorded in the "Inspection Form" located at the back of this manual (p 14).

ANSI Z359.11-2021

OSHA 1910.66, OSHA 1926.502

This manual is intended to meet the manufacturer's instructions as required by ANSI Z359.11 and should be used as part of an employee training program as required by OSHA.

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User Information

Date of First Use: _____

Serial#: _____

Trainer: _____

User: _____



These instructions must be provided to any person utilizing this equipment. The worker must read and understand the manufacturer's instructions for this, and all other components of the complete Fall Protection System. It is expected that all personnel be fully trained in the safe installation and use of this equipment. These instructions must be followed for the proper use, maintenance, and inspection of this equipment. These instructions must be kept and made available to worker's at all times. Any alteration, misuse, or use of this equipment outside the scope of the manufacturer's instructions, may result in serious injury or death. A comprehensive Fall Protection Plan must be kept on file and available to all employees at all times.

Inspect all components of this system prior to each use and at least annually. Inspect in accordance with the user instructions. If this equipment is exposed to the forces of a Fall Arrest or Impact Force, the equipment must be removed from service and inspected by a Competent Person prior to being used again.

This product is part of a complete fall protection system. A PFAS is typically composed of a Full Body Harness, Anchorage, and a Connecting Device. Connecting Devices used with Safewaze Full Body Harnesses are Energy Absorbing Lanyards (EAL's) or a Self Retracting Lifeline (SRL). The connection point to the FBH for use of a Vertical Lifeline (VLL) is the Sternal (Front) D-ring.

Personnel must always maintain 3 points of contact during climbing operations. If utilizing components from different manufacturers, ensure that all components are compatible and meet all applicable standards, codes, and requirements. Before using this equipment, consult with a Competent and/or Qualified Person.

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 or minors must not use this equipment. Failure to heed this warning may result in serious injury or death.

Never exceed the maximum allowable capacity of your fall protection equipment. Never exceed the maximum free fall distance of your fall protection equipment.

Do not use this system or any other part of a PFAS that fails pre-use or other scheduled inspections. For any questions or concerns regarding the use of this equipment for an application not specified in this manual, contact Safewaze technical support.

Additional precautions should be used when working in environments of high heat, electrical hazards, chemical hazards, explosive or combustible chemicals, toxic materials, or sharp edges. Ensure that equipment in use on the next higher level cannot fall and possibly strike a user below, or make contact with a piece of the user's PFAS

Use of a body belt for fall protection applications is not permitted. Only use an approved Full Body Harness.

Make considerations for eliminating or minimizing all swing fall hazards. Swing falls occur when the anchor is not directly above the location where a fall occurs. Always work as close to in line with the anchor point as possible. Swing falls significantly increase the likelihood of serious injury or death in the event of a fall.

Contact Safewaze if you have questions regarding compatibility of this equipment that are not covered in this manual. Do not alter or misuse this equipment. Some subsystem components could affect the performance and the operation of this equipment. Do not anchor this product to moving machinery, or hazards that have chemical, electrical or gaseous characteristics. Failure to comply with this warning could result in serious injury or death.

D-Ring Extenders are connected to the Dorsal D-ring of a Full Body Harness (FBH). The D-ring Extender provides additional spacing between the user's Dorsal D-ring and their fall protection device. When attached to the Dorsal D-ring of a FBH, the D-ring Extender becomes a component of the FBH as part of the complete Personal Fall Protection System (PFAS).

Working at heights involves inherent risks. Leading Edge environments add additional risks to any Fall Protection or Rescue Plan. If work involves a Leading Edge environment, the use of a D-ring Extender IS NOT authorized. D-ring extenders can interfere with the proper function and performance of a Leading Edge Rated SRL or Energy Absorbing Lanyard. Use of a Safewaze D-ring Extender in any Leading Edge application may result in serious injury or death!

NEVER attach additional equipment to the Dorsal D-ring of a Full Body Harness while a D-ring extender remains connected. The D-ring extender must be removed from the Dorsal D-ring prior to connection of a separate piece of fall protection equipment. Two active connections to a single D-ring does not comply with ANSI or OSHA regulations.

Do not throw away these instructions!

Read and understand these instructions before using equipment!



Per ANSI Z359.11-2021:

It is essential that the users of this type of equipment receive proper training and instruction including detailed procedures for the safe use of such equipment in their work application. ANSI/ASSP Z359.2, *Minimum Requirements for a Comprehensive Managed Fall Protection Program*, establishes guidelines and requirements for an employer's managed fall protection program including policies, duties and training; fall protection procedures; eliminating and controlling fall hazards; rescue procedures; incident investigations; and evaluating program effectiveness.

Correct fit of a Full Body Harness (FBH) is essential to proper performance. Users must be trained to select the size and maintain fit of the FBH selected for use with the Safewaze D-ring Extender.

Users must follow manufacturer's instructions for proper fit and sizing, paying particular attention to ensure that buckles are connected and aligned correctly, leg straps and shoulder straps are kept snug at all times, chest straps are located in the middle chest area and leg straps are positioned and snug to avoid contact with the genitalia should a fall occur.

FBHs which meet ANSI/ASSP Z359.11 are intended to be used with other components of a personal fall arrest system that limit maximum arrest forces to 1800 pounds (8kN) or less.

Suspension intolerance, also called suspension trauma or orthostatic intolerance, is a serious condition that can be controlled with good harness design, prompt rescue and post fall suspension relief devices. A conscious user may deploy a suspension relief device allowing the user to remove tension from around the legs, freeing blood flow, which can delay the onset of suspension intolerance. An attachment element extender is not intended to be attached directly to an anchorage or anchorage connector for fall arrest. An energy absorber must be used to limit maximum arrest forces to 1800 pounds (8 kN). The length of the attachment element extender may affect free fall distances and free fall clearance calculations.

FBH stretch / D-ring Extender Length. The amount the FBH component of a personal fall arrest system will stretch and deform during a fall, can contribute to the overall elongation of the system in stopping a fall. It is important to include the increase in fall distance created by FBH stretch, as well as the FBH connector length, the settling of the user's body in the FBH and all other contributing factors when calculating total clearance required for a particular fall arrest system. The length of the D-ring Extender must also be factored into overall fall clearance calculations.

When not in use, unused lanyard legs that are still attached to a FBH D-ring should not be attached to a work positioning element or any other structural element on the FBH unless deemed acceptable by the competent person and manufacturer of the lanyard. This is especially important when using some types of "Y" style lanyards, as some load may be transmitted to the user through the unused lanyard leg if it is not able to release from the harness. The lanyard parking attachment is generally located in the sternal area to help reduce tripping and entanglement hazards.

Loose ends of straps can get caught in machinery or cause accidental disengagement of an adjuster. All FBHs shall include keepers or other components which serve to control the loose ends of straps.

Due to the nature of soft loop connections, it is recommended that soft loop attachments only be used to connect with other soft loops or carabiners. Snaphooks should not be used unless approved for the application by the manufacturer.

The following is additional information concerning the location and use of various attachments that may be provided on a FBH:

Dorsal - The dorsal attachment element shall be used as the primary fall arrest attachment unless the application allows the use of an alternate attachment. The dorsal attachment may also be used for travel restraint or rescue. When supported by the dorsal attachment during a fall, the design of the FBH shall direct load through the shoulder straps supporting the user and around the thighs. Supporting the user, post fall, by the dorsal attachment will result in an upright body position with a slight lean to the front with some slight pressure to the lower chest. Considerations should be made when choosing a sliding versus fixed dorsal attachment element. Sliding dorsal attachments are generally easier to adjust to user sizes, and allow a more vertical rest position post fall, but can increase FBH stretch.

Sternal - The sternal attachment may be used as an alternative fall arrest attachment in applications where the dorsal attachment is determined to be inappropriate by a competent person and where there is no chance to fall in a direction other than feet first. Accepted practical uses for sternal attachment include, but are not limited to, ladder climbing with a guided type fall arrester, ladder climbing with an overhead self-retracting lifeline for fall arrest, work positioning and rope access. The sternal attachment may also be used for travel restraint or rescue. When supported by the sternal attachment during a fall, the design of the FBH shall direct load through the shoulder straps supporting the user and around the thighs. Supporting the user, post fall, by the sternal attachment will result in roughly a sitting or cradled body position with weight concentrated on the thighs, buttocks, and lower back. Supporting the user during work positioning by this sternal attachment will result in an approximate upright body position.

If the sternal attachment is used for fall arrest, the competent person evaluating the application should take measures to ensure that a fall can occur feet first. This may include limiting the allowable free fall distance. It may be possible for a sternal attachment incorporated into an adjustable style chest strap to cause the chest strap to slide up and possibly choke the user during a fall, extraction, suspension, etc. The competent person should consider FBH models with a fixed sternal attachment for these applications.

Shoulder - The shoulder attachment elements shall be used as a pair and are an acceptable attachment for rescue and entry/retrieval. The shoulder attachment elements shall not be used for fall arrest. It is recommended that the shoulder attachment elements be used in conjunction with a yoke which incorporates a spreader element to keep the FBH shoulder straps separate.

Frontal - The frontal attachment serves as a ladder climbing connection for guided type fall arresters where there is no chance to fall in a direction other than feet first or may be used for work positioning. Supporting the user, post fall or during work positioning, by the frontal attachment will result in a sitting body position with the upper torso upright with weight concentrated on the thighs and buttocks. When supported by the frontal attachment the design of the FBH shall direct load directly around the thighs and under the buttocks by means of the sub-pelvic strap.

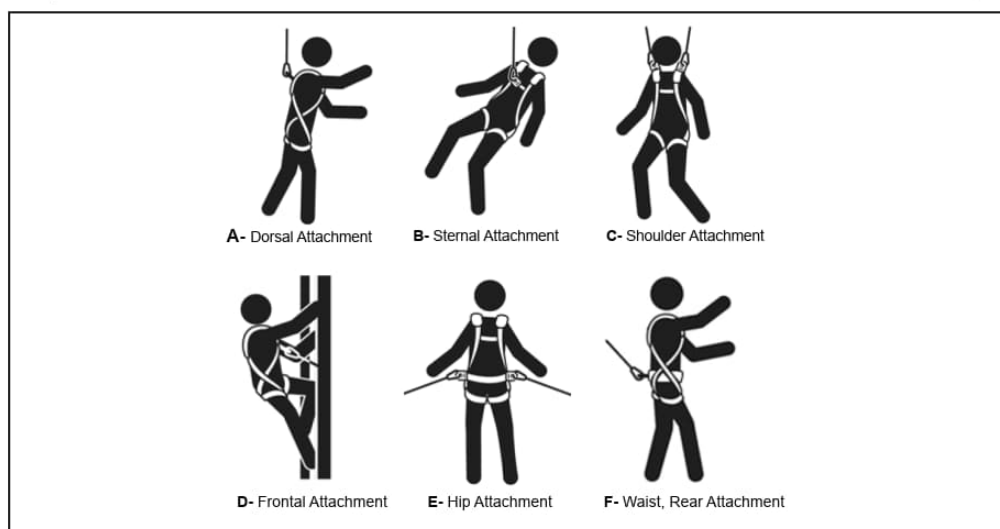
If the frontal attachment is used for fall arrest, the competent person evaluating the application should take measures to ensure that a fall can only occur feet first. This may include limiting the allowable free fall distance.

Hip - The hip attachment elements shall be used as a pair and shall be used solely for work positioning. The hip attachment elements shall not be used for fall arrest. Hip attachments are often used for work positioning by arborists, utility workers climbing poles and construction workers tying rebar and climbing on form walls. Users are cautioned against using the hip attachment elements (or any other rigid point on the FBH) to store the unused end of a fall arrest lanyard as this may cause a tripping hazard or, in the case of multiple leg lanyards, could cause adverse loading to the FBH and the wearer through the unused portion of the lanyard.

Waist, Rear - The waist, rear attachment shall be used solely for travel restraint. The waist, rear attachment element shall not be used for fall arrest. Under no circumstances is it acceptable to use the waist, rear attachment for purposes other than travel restraint. The waist, rear attachment shall only be subjected to minimal loading through the waist of the user and shall never be used to support the full weight of the user.

Suspension Seat - The suspension seat attachment elements shall be used as a pair and shall be used solely for work positioning. The suspension seat attachment elements shall not be used for fall arrest. Suspension seat attachments are often used for prolonged work activities where the user is suspended allowing the user to sit on the suspension seat formed between the two attachment elements. An example of this use would be window washers on large buildings.

FIGURE 1 - APPROVED D-RING APPLICATIONS



Application	Harness Attachment Location
Fall Arrest	Dorsal, Sternal, Frontal
Restraint	Dorsal, Sternal, Frontal, Hip, Rear
Work Positioning	Frontal, Hip
Rescue	Dorsal, Sternal, Frontal, Shoulder
Controlled Descent	Dorsal, Sternal, Frontal
Climbing	Dorsal, Sternal

USER INSPECTION, MAINTENANCE AND STORAGE OF EQUIPMENT

Users of personal fall arrest systems shall at a minimum, comply with all manufacturer instructions regarding the inspection, maintenance and storage of the equipment. The user's organization shall retain the manufacturer's instructions and make them readily available to all users. See ANSI Z359.2, *Minimum Requirements for a Comprehensive Managed Fall Protection Program*, regarding user inspection, maintenance and storage of equipment.

1. In addition to the inspection requirements set forth in the manufacturer's instructions, the equipment shall be inspected by the user before each use and additionally by a competent person, other than the user, at interval of no more than one year for:
 - Absence or illegibility of markings.
 - Absence of any elements affecting the equipment form, fit or function.
 - Evidence of defects in, or damage to, hardware elements including cracks, sharp edges, deformation, corrosion, chemical attack, excessive soiling, abrasion, alteration, needed or excessive lubrication, excessive aging and excessive wear.
2. Inspection criteria for the equipment shall be set by the user's organization. Such criteria for the equipment shall equal or exceed the criteria established by this standard or the manufacturer's instructions, whichever is greater.
3. When inspection reveals defects in, damage to, or inadequate maintenance of equipment, the equipment shall be permanently removed from service or undergo adequate corrective maintenance by the original equipment manufacturer or their designate before return to service.

MAINTENANCE AND STORAGE

1. Maintenance and storage of equipment shall be conducted by the user's organization in accordance with the manufacturer's instructions. Unique issues, which may arise due to conditions of use, shall be addressed with the manufacturer.
2. Equipment which is in need of, or scheduled for, maintenance shall be tagged as unusable and removed from service.
3. Equipment shall be stored in a manner as to preclude damage from environmental factors such as temperature, light, UV, excessive moisture, oil, chemicals and their vapors or other degrading elements.

1.0 INTRODUCTION

Thank you for purchasing a Safewaze D-ring Extender. This manual must be read and understood in its entirety, and used as part of an employee training program as required by OSHA or any applicable state agency. This manual and any other instructional material must be available to the user of the equipment. The user must understand how to safely and effectively use their D-ring Extender, and all fall protection equipment used in conjunction with the extender.

2.0 APPLICATION

The Safewaze D-ring Extender is a bodywear component of the user's Personal Fall Arrest System (PFAS). Safewaze D-ring Extenders are offered in a variety of configurations to ensure that the user can work safely and comfortably in any work environment. These instructions will cover the proper installation and use of an extender. The extender is part of a complete PFAS that requires a properly rated anchorage and connector, that in conjunction with an appropriate connecting device, meets the fall protection requirement.

3.0 APPLICABLE SAFETY STANDARDS

When used according to instructions, extenders included in this manual meet ANSI Z359.11-2021 and OSHA regulations for fall protection. Applicable standards and regulations depend on the type of work being done, and may include state-specific regulations. Refer to local, state, and federal (OSHA) requirements for additional information concerning the governing of occupational safety regarding Personal Fall Arrest Systems (PFAS).

4.0 WORKER CLASSIFICATIONS

Understand the definitions of those who work in proximity of or may be exposed to fall hazards.

Qualified Person: "Qualified Person" means one who, by possession of a recognized degree, certificate, or professional standing, or who by extensive knowledge, training, and experience, has successfully demonstrated his ability to solve or resolve problems relating to the subject matter, the work, or the project.

Competent Person: "Competent Person" means one who is capable of identifying existing and predictable hazards in the surroundings or working conditions which are unsanitary, hazardous, or dangerous to employees, and who has authorization to take prompt corrective measures to eliminate them.

Authorized Person: "Authorized Person" means a person approved or assigned by the employer to perform a specific type of duty or duties or to be at a specific location or locations at the job site.

It is the responsibility of a Qualified or Competent person to supervise the job site and ensure safety regulations are complied with.

5.0 PURPOSE

Purpose: The Safewaze series of D-ring Extenders are designed to be used as part of a Personal Fall Arrest System (PFAS).

- A competent person shall train users on this equipment in accordance with OSHA and ANSI.
- Never exceed a free fall distance of 6 ft. A free fall of more than 6 ft could cause excessive arrest forces that could result in serious injury or death.
- Safewaze D-ring Extenders have a maximum capacity of:
ANSI 310 lbs (140.6 kg) including tools, clothing, etc..., **OSHA** up to 420 lbs. (190.51 kg) including tools, clothing, etc...
- Anchorages for attachment of a Personal Fall Arrest System shall support a minimum of 5,000 lbs or be designed with a safety factor of two by a Qualified Person.
- All Safewaze D-ring Extenders must IMMEDIATELY be removed from service if subjected to fall arrest forces.
- Safewaze D-ring Extenders shall be inspected by the end user prior to each usage and by a Competent Person other than the user at least annually. These annual inspections shall be documented.

6.0 LIMITATIONS & REQUIREMENTS

When installing or using this equipment always refer to the following requirements and limitations:

6.1 CAPACITY

Safewaze D-ring Extenders are designed for the following weight capacities
(Maximum capacities include clothing, tools, and equipment):

ANSI Z359: 130-310 lbs max
OSHA: Up to 420 lbs max

6.2 ANCHORAGE

Anchorage selected for fall arrest systems shall have a strength capable of sustaining static loads applied in the directions permitted by the system of at least:

1. 5,000 lbs. (22.2 kN) for non-certified anchorages, or
2. Two times the maximum arresting force for certified anchorages.

When more than one fall arrest system is attached to an anchorage, the strengths set forth in (1) and (2) above shall be multiplied by the number of systems attached to the anchorage.

From OSHA 1926.502 and 1910.66

Anchorage used for attachment of personal fall arrest systems shall be independent of any anchorage being used to support or suspend platforms, and capable of supporting at least 5,000 lbs (22.2 kN) per user attached, or be designed, installed, and used as part of a complete personal fall arrest systems which maintains a safety factor of at least two, and is under the supervision of a qualified person.

6.3 INSPECTION FREQUENCY

Either the Authorized Person (User), or the Rescuer must inspect this equipment before each use. Annual inspections must be completed by a Competent Person other than the user. Results must be documented.

6.4 RESCUE PLAN

When using this equipment, employers must create a rescue plan, and provide the means to implement the plan. This plan must be communicated to equipment users, authorized persons, and rescuers. Rescue operations require specialized equipment beyond the scope of this manual. See ANSI Z359.4-2013 for specific rescue information.



NOTE: Special rescue measures may be required for a fall over an edge.

6.5 FREE FALL

In order to ensure reduced fall distances, always attempt to anchor the connecting device directly overhead. Overhead anchoring will limit free fall distance to a minimum. Be aware of workers sharing the workspace to avoid becoming tangled with another worker. Steer clear of objects that could fall and impact a lifeline. The lifeline should never pass under the user's arms or legs. A lifeline should never be knotted, clamped, or be otherwise modified.

6.6 BODY SUPPORT

A Personal Fall Arrest System (PFAS) must utilize a Full Body Harness. Refer to Figure 1 of this manual for specific FBH D-ring approved applications.

6.7 FALL CLEARANCE

It is important to make sure that adequate clearance is available. Free Fall, Maximum Arrest Distance, Height of Worker, and current clearance above the next fall hazard must all be considered in the Fall Clearance calculation.

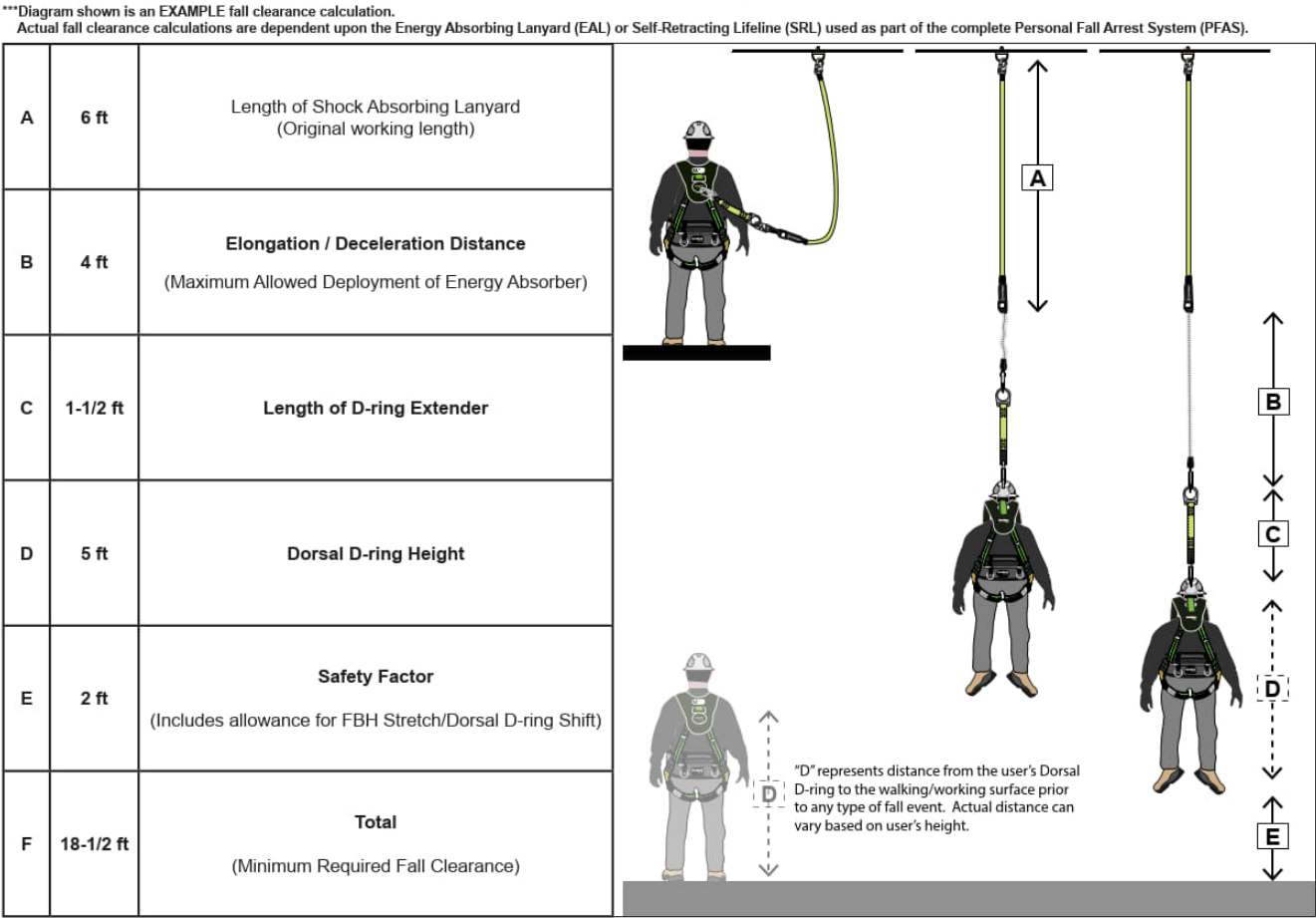
6.8 DETERMINE MINIMUM REQUIRED FALL CLEARANCE

Fall Clearance: There must be sufficient clearance below the anchorage connector to arrest a fall before the user strikes the ground or an obstruction. When calculating fall clearance, account for a MINIMUM 2' safety factor, deceleration distance, user height, length of lanyard/SRL, and all other applicable factors. Figure 2 illustrates an "example" of a typical fall clearance calculation.

FIGURE 2

For all applications: worker weight capacity range
(including all clothing, tools, and equipment) is
ANSI 130-310 lbs., OSHA 420 lbs.

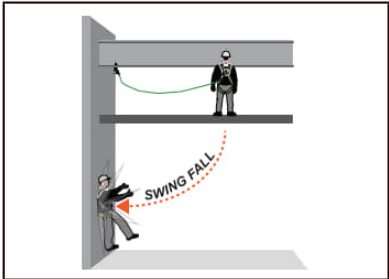
Fall Clearance Diagram



6.9 SWING FALLS

An anchorage point located in a position that is not directly over the user's fall location results in a swing fall (See Figure 3). Swing falls may result in the user striking an object with enough force to cause serious injury. Greater clearance is needed to ensure safety during a swing fall as vertical fall distance will be greater than a fall originating directly below the anchorage point.

FIGURE 3 - SWING FALLS



7.0 COMPATIBILITY OF COMPONENTS

Unless otherwise noted, Safewaze equipment is designed for use with Safewaze approved components and subsystems only. Substitutions or replacements made with non approved components or subsystems may jeopardize compatibility of equipment and may affect safety and reliability of the complete system.



IMPORTANT: Read and follow manufacturer's instructions for associated components and subsystems in your personal fall arrest system.

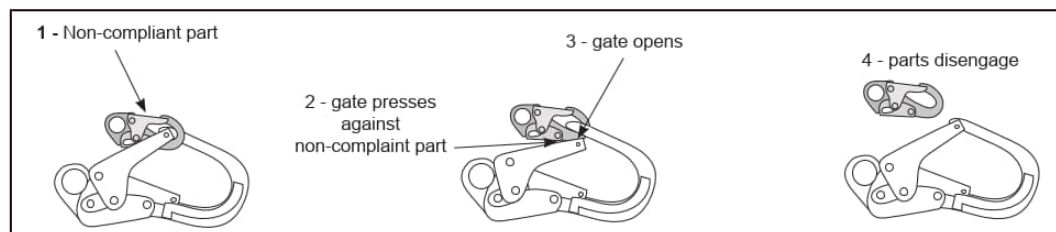
8.0 COMPATIBILITY OF CONNECTORS

Connectors are compatible with connecting elements when they have been designed to work together in such a way that their sizes and shapes do not cause their gate mechanisms to inadvertently open regardless of how they become oriented. Connectors (hooks, carabiners, and D-rings) must be capable of supporting at least 5,000 lbs. (22.2 kN). Do not use equipment that is not compatible. Non-compatible connectors may unintentionally disengage (See Figure 4). Connectors must be compatible with the anchorage or other system components (See Figure 5). Connectors must be compatible in size, shape, and strength. Self-locking snap hooks and carabiners are required by ANSI Z359 and OSHA guidelines. Contact Safewaze if you have any questions about compatibility.



NOTE: SOME SPECIALTY CONNECTORS HAVE ADDITIONAL REQUIREMENTS. CONTACT SAFEWAZE WITH QUESTIONS.

FIGURE 4 - UNINTENTIONAL DISENGAGEMENT



Using a connector that is undersized or irregular in shape (1) to connect a snap hook or carabiner could allow the connector to force open the gate of the snap hook or carabiner. When force is applied, the gate of the hook or carabiner presses against the non-compliant part (2) and forces open the gate (3). This allows the snap hook or carabiner to disengage (4) from the connection point.

9.0 MAKING CONNECTIONS

Snap hooks and carabiners used with this equipment must be double locking and/or twist lock. Ensure all connections are compatible in size, shape and strength. Do not use equipment that is not compatible. Ensure all connectors are fully closed and locked.

Safewaze connectors (snap hooks and carabiners) are designed to be used only as specified in each product's user instructions. See Figure 5 for examples of inappropriate connections. Do not connect snap hooks and carabiners:

- To a D-ring to which another connector is attached.
- In a manner that would result in a load on the gate (with the exception of tie-back hooks). NOTE: Large snap hooks must not be connected to objects which will result in a load on the gate if the hook twists or rotates, unless the snap hook complies with ANSI Z359.12 and is equipped with a 3,600 lb (16 kN) gate. Check the marking on your snap hook to verify its compatibility.

FIGURE 5 - INAPPROPRIATE CONNECTIONS

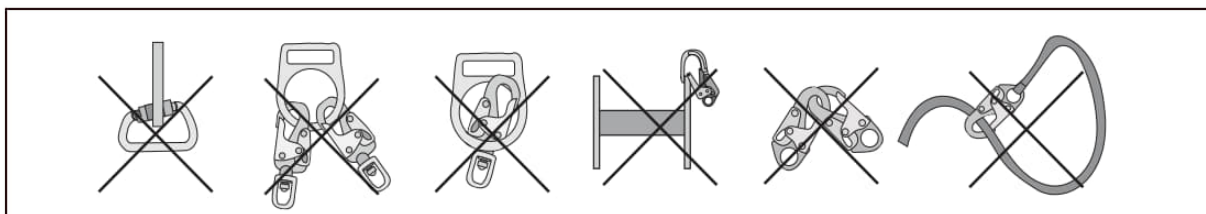


FIGURE 6 - TYPICAL CONNECTION AS PART OF A COMPLETE PFAS

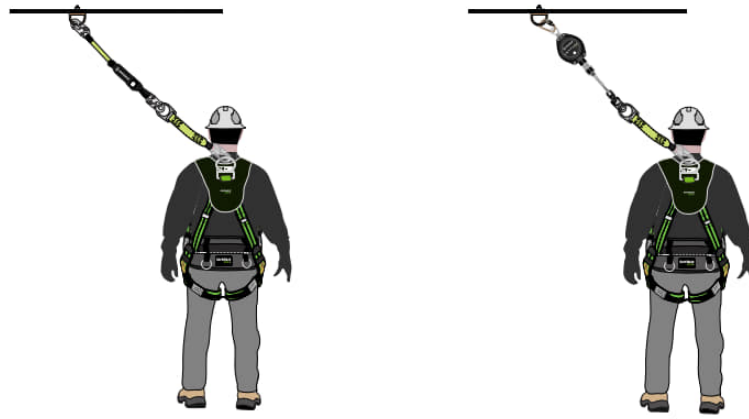


FIGURE 7 - CONNECTION TO FBH



10.0 APPLICATION LIMITS

Precautions should be taken in the design and installation of a PFAS in order to avoid hazards such as thermal, chemical, or electrical hazards. Avoid moving machinery, sharp and/or abrasive edges, and any other hazard that could damage or degrade components of the PFAS.

11.0 RESTRICTIONS

Safewaze D-ring Extenders are offered in a variety of configurations to suit a multitude of work environments. The unique features of a specific extender may not be suited for all applications. The following are some restrictions that should be considered prior to use of your Safewaze D-ring Extender:

Extended Free Falls: All Safewaze D-ring Extenders are designed and rated for 6' (1.83 m) and 12' (3.66 m) FF applications. For 12' FF applications, the user must use a Personal Energy Absorber (PEA) rated for for this level of free fall.

Harsh Chemical Environments: Work operations in a caustic or acidic chemical hazard environment may cause damage to your Safewaze D-ring Extender. Damage to the extender due to chemical exposure can, in some instances, be difficult to detect. In any environment, the extender must be inspected prior to each use, however, a harsh chemical environment can necessitate more frequent inspections. Care should be taken to inspect the extender before, during, and after each use. A harsh chemical environment may also cause a need for more frequent replacement of the extender.

Welding, Arc Flash, High Heat Environments: If work operations are conducted in an environment where the D-ring Extender may be exposed to extremely high temperatures, the user should choose an extender specifically designed for these environments. Specific extenders are available for welding, fire resistance, and ARC Flash environments.

Heavyweight: Although ANSI Z359.11 specifies a weight capacity range of 130 to 310 lbs. (59 to 140 kg), most Safewaze D-ring Extenders have a maximum weight capacity of up to 420 lbs. (191 kg). If the user has a weight that exceeds the ANSI max weight of 310 lbs. (140 kg), it should be ensured that other components of the PFAS are rated for a heavyweight user.



IMPORTANT: The components of a PFAS used in conjunction with the Safewaze D-ring Extender should meet the requirements of the ANSI Z359 Fall Protection Code.



WARNING: Contact Safewaze if you have questions, regarding compatibility of this equipment. Do not alter or misuse this equipment. Some subsystem components could affect the performance and the operation of this equipment. Do not connect this product to moving machinery, or hazards that include chemical, electrical or gaseous characteristics. Failure to comply with this warning could result in serious injury or death.

12.0 PRE-USE INSPECTION

Upon receiving your Safewaze D-ring Extender, remove the product from the packaging and fully inspect extender for possible damage that may have occurred during shipping.

Prior to each use, inspect for the following conditions:

- Inspect the webbing of the extender for cuts, frays, broken stitching, damage from heat or chemical exposure, or other defects related to excessive wear or abrasion.
- Inspect the extender for indications that it has been exposed to fall arrest forces.
- Inspect extender labeling to ensure that they are legible and present on the harness. If any labeling is illegible, or missing, remove the extender from service.

13.0 INSTALLATION AND USE

Installation of any Safewaze D-ring Extender must be performed under the supervision of a Competent Person trained in their use and design.

Ensure selected anchor location meets the strength requirements as indicated in Section 6 of this manual.

Do not allow free-fall to exceed 6 ft.

Any equipment exposed to Fall Arrest forces must be removed from service immediately.

See section 13.3 for specific installation details.

13.1 OPERATION

Inspect the extender, as described in Section 15 prior to use. Refer to Figure 6 for the most common extender connections. Ensure connections are compatible in size, shape, and strength. Ensure hooks are fully closed and locked.

13.2 AFTER A FALL

Should the Safewaze D-ring Extender be exposed to an the force of a fall, or shows damage consistent with the effects of a fall, it must be IMMEDIATELY removed from service. Equipment must then be disposed of (See Section 15.5).

13.3 HARNESS CONNECTIONS

Figure 6 illustrates typical D-ring Extender connections when working at heights. When using a snap hook to make a connection, ensure roll-out cannot occur (See Figure 4). Do not use snap hooks or carabiners that will not completely close over the anchor point. This includes traditional overhead anchor point tie off, SRL housing attachment to dorsal D-ring, and 100% tie off. Follow the manufacturer's instructions supplied with each system component. Figure 7 indicates examples of inappropriate and appropriate connection to the Dorsal D-ring of a Full Body Harness, as well as the appropriate installation of a Soft Loop D-ring Extender.

14.0 MAINTENANCE, CLEANING, & STORAGE

14.1 MAINTENANCE

Remove the Safewaze D-ring Extender from use if the extender has been subjected to fall arrest forces or inspection reveals an unsafe or defective condition. If unsafe or defective condition is found, dispose of the extender as recommended in section 15.5.

14.2 CLEANING

Cleaning procedures for Safewaze D-ring Extenders are as follows:

If webbing becomes soiled or requires cleaning, use water and a mild soap solution.

Clean labels to maintain legibility.

Hang the extender and allow to fully dry before using. Do not dry the extender in a commercial type dryer, or use heated air to dry.

14.3 STORAGE

Store Safewaze D-ring Extenders in a cool, dry, clean environment out of direct sunlight. Avoid areas where chemical vapors may exist. Thoroughly inspect extender after any period of extended storage.

15.0 INSPECTION

15.1 BEFORE EACH USE

Inspect the webbing of the extender for cuts, frays, broken stitching, damage from heat or chemical exposure, or other defects related to excessive wear or abrasion.

Inspect the D-ring Extender for indications that it has been exposed to fall arrest forces.

Inspect extender labeling to ensure that they are legible and present. If any labeling is illegible or missing, remove the extender from service.

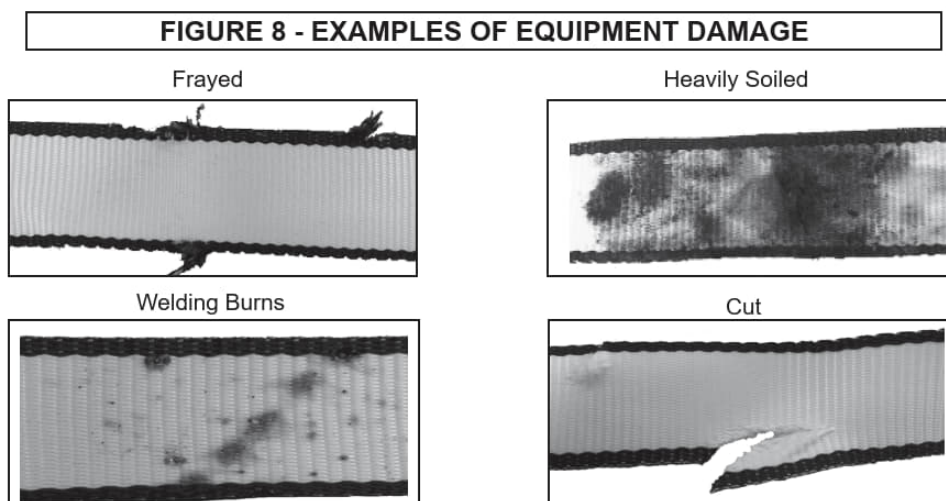
Inspect the D-ring Extender to include stitching and hardware. Ensure no stitches are broken, frayed, or cut. Inspect that hardware functions properly and does not display any excessive corrosion. Inspect all extender webbing and stitching for possible damage or defects.

15.2 INSPECTION FREQUENCY

In addition to inspection prior to each use, the extender must be inspected annually by a competent person other than the user. Severe or harsh environments may require more frequent inspections.

15.3 UNSAFE OR DEFECTIVE CONDITIONS

Figure 8 shows examples of equipment damage. Equipment inspectors must be trained to look for damage to components of the D-ring Extender as illustrated in Figure 8, as well as other damage that may occur. If inspection reveals an unsafe or defective condition remove the extender from service.



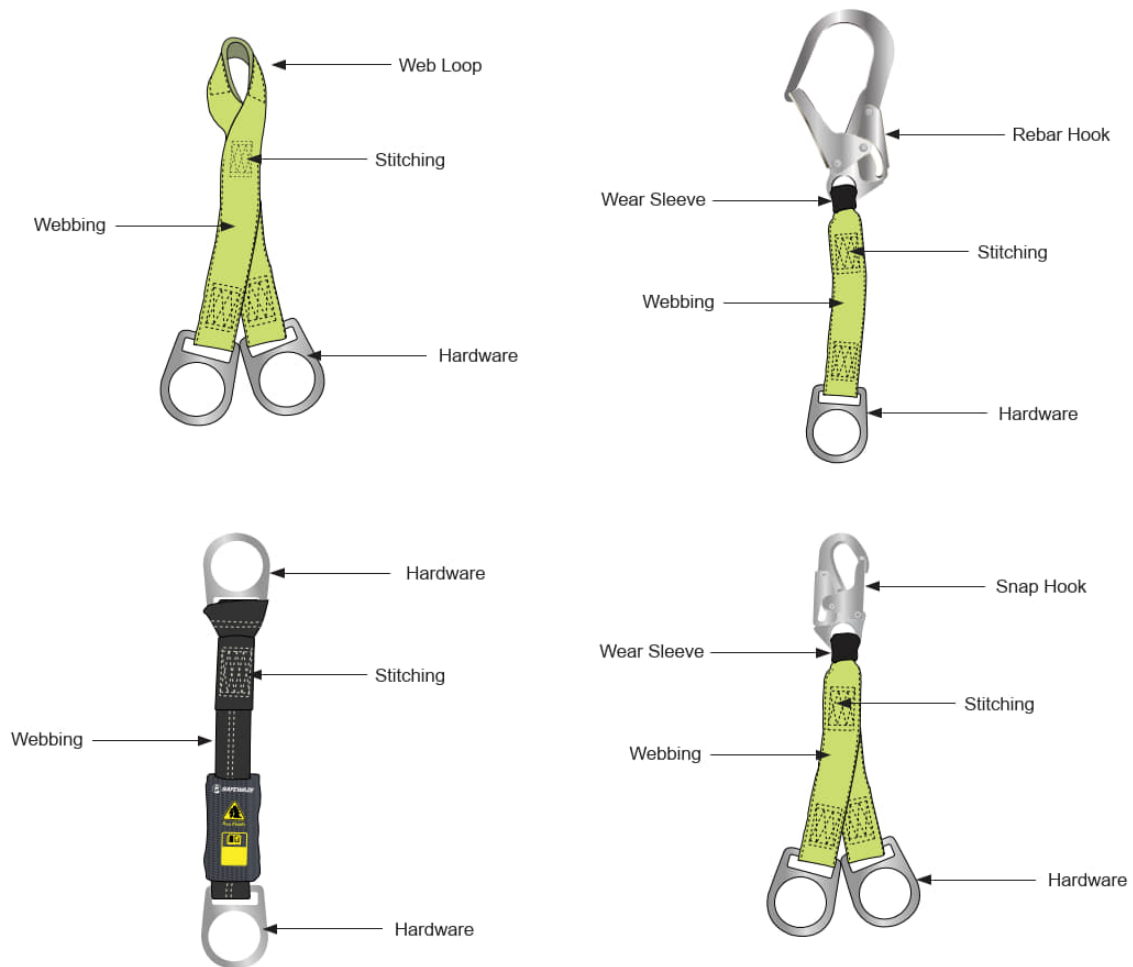
15.4 PRODUCT LIFE

The working life of Safewaze D-ring Extenders are determined by work conditions, care and inspection provided. As long as the extender passes inspection, it may remain in service.

15.5 DISPOSAL

Dispose of the Safewaze D-ring Extender if it has experienced fall arrest forces or inspection reveals an unsafe or defective condition. Before disposing of the extender, cut into separate sections to prevent future use.

FIGURE 9 - INSPECTION DIAGRAMS




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 or minors must not use Safewaze D-ring Extenders. Failure to heed this warning may result in serious injury or death.




WARNING: DO NOT use the D-ring Extender to hoist tools or equipment.

16.0 LABELING

FIGURE 10 - LABEL EXAMPLES


SAFETAZE
225 Winton Ave. SW
Concord, NC 28625
USA
(800) 230-0219
www.safetaze.com


FS814

MODEL #: FS814
DESCRIPTION: 18 In Web Extender w D-Ring and Rebar Hook
SERIAL #: 22100269 **MFG DATE:** 11/2022
MATERIALS: Polyester webbing, steel hardware
MAX WEIGHT CAPACITY: 319 lbs.
MUST FOLLOW ALL MFO'S INSTRUCTIONS INCLUDED WITH THE EQUIPMENT
Meets: OSHA 1926.502 and ANSI Z359.3

▲ WARNING

Manufacturer's instructions supplied with this product at time of shipment must be read and understood prior to use. This d-ring extender shall only be used with compatible Safewaze equipment. Inspect all connections prior to use and verify connecting components are installed correctly. Failure to make secure connections could result in serious injury or death. Not flame or heat resistant unless otherwise specified. Avoid contact with sharp and abrasive edges. Any unit which has been exposed to fall arrest forces should be immediately removed from service and destroyed.

DO NOT REMOVE THIS LABEL

[illegible]

17.0 INSPECTION FORM

Product lifetime is indefinite as long as it passes pre-use and Competent Person inspections. User must inspect prior to each use. Competent Person other than the user must complete formal inspection at least annually.


SAFEWAZE

INSPECTION FORM

HARNESSES

Manufacturer: _____	Company: _____
Model Number: _____	Name of Inspector: _____
Description: _____	Signature: _____
Serial Number: _____	Date of Inspection: _____
Lot Number: _____	In-Service Date: _____
Date of Manufacture: _____	Harness Configuration: Chest Strap <input type="checkbox"/> PT <input type="checkbox"/> TB <input type="checkbox"/> Leg Straps <input type="checkbox"/> PT <input type="checkbox"/> TB <input type="checkbox"/> Waist Belt <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/>

LABELS & MARKINGS

	PASS	FAIL	NOTE
Label (Intact and Legible)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Appropriate ANSI / OSHA / CSA Markings	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Inspections are Current / Up-to-Date	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Date of First Use	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Impact / Fall Indicators Not Deployed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

HARDWARE (Buckles & D-Rings)

	PASS	FAIL	NOTE
Signs of Deformity or Damage	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Proper D-ring attachment and operation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
All Buckles Undamaged and Operational	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Corrosion / Pitting / Nicks	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ensure Grommets are Secure / Do Not Move	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

WEBBING

	PASS	FAIL	NOTE
Shoulder / Chest / Leg / Back Straps	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Cuts / Burns / Holes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Paint Contamination	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Excessive Wear	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Heat / UV Damage	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

STITCHING

	PASS	FAIL	NOTE
Shoulder / Chest / Leg / Back Straps	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



NOTES



225 Wilshire Avenue SW, Concord NC 28025

800-230-0319

www.safewaze.com

**If equipment fails inspection
IMMEDIATELY REMOVE FROM SERVICE**



Safewaze
225 Wilshire Ave SW
Concord, NC 28025

PHONE: 1-800-230-0319
FAX: 1-704-262-9051

WEB: Safewaze.com
EMAIL: info@Safewaze.com

Vertical Lifeline Instruction Manual



VERTICAL LIFELINE INSTRUCTION MANUAL



Part Numbers 019-7007 & 019-7009



WARNING

This product is part of a personal fall arrest, work positioning, or rescue system. The manufacturer's instructions must be provided to users of this equipment. The user must follow the manufacturer's instructions for each component of the system. The user must read and understand these instructions before using this equipment. Manufacturer's instructions must be followed for proper use and maintenance of this equipment. Alterations to this product, misuse of this product, or failure to follow instructions may result in serious injury or death.

IMPORTANT

Questions regarding the use, care, or suitability of this equipment for your application? Contact SAFEWAZE™.

IMPORTANT

Record initial usage of product on Page 2, and Page 10. Competent Person inspections are required to be documented in the Inspection Log Table on Page 10.

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User Information

Date of First Use: _____

Serial#: _____

Trainer: _____

User: _____

Do not throw away these instructions!

Read and understand these instructions before using equipment!

INTRODUCTION

Thank you for purchasing SAFEWAZE™ Vertical Rope Lifeline. This manual must be read and understood in its entirety, and used as part of an employee training program as required by OSHA or any applicable state agency.

This manual and any other instructional material must be available to the user of the equipment. The user must understand how to safely and effectively use the Vertical Rope Lifeline, and all fall protection equipment used in conjunction with the Vertical Rope Lifeline.

APPLICABLE SAFETY STANDARDS

When used according to instructions, this product meets or exceeds all applicable OSHA 1926 Subpart M, OSHA 1910, ANSI Z359.15, and ANSI A10.32-2012 standards for fall protection. Applicable standards and regulations depend on the type of work being done, and also might include state-specific regulations. Refer to local, state, and federal (OSHA) requirements for additional information concerning the governing of occupational safety regarding Personal Fall Arrest Systems (PFAS).

Worker Classifications



Understand the definitions of those who work in proximity of or may be exposed to fall hazards.

Qualified Person: A person with an accredited degree or certification, and with extensive experience or sufficient professional standing, who is considered proficient in planning and reviewing the conformity of fall protection and rescue systems.

Competent Person: A highly trained and experienced person who is **assigned by the employer** to be responsible for all elements of a fall safety program, including, but not limited to, its regulation, management, and application. A person who is proficient in identifying existing and predictable hazards, and who has the authority to stop work in order to eliminate hazards.

Authorized Person: A person who is assigned by their employer to work around or be subject to potential or existing fall hazards.

It is the responsibility of a Qualified or Competent person to supervise the job site and ensure safety regulations are complied with.

Product Specific Applications

Personal Fall Arrest: SAFEWAZE™ Vertical Lifelines can be used as part of a complete Personal Fall Arrest System (PFAS) for a maximum of one user. The structure utilized for attachment must be capable of withstanding a load of 5,000 lbs in all directions permitted by the system. The maximum allowable free fall is 6 ft, with the maximum combined length of the fall arrester, lanyard extension, and D-ring being 36 inches.

Limitations

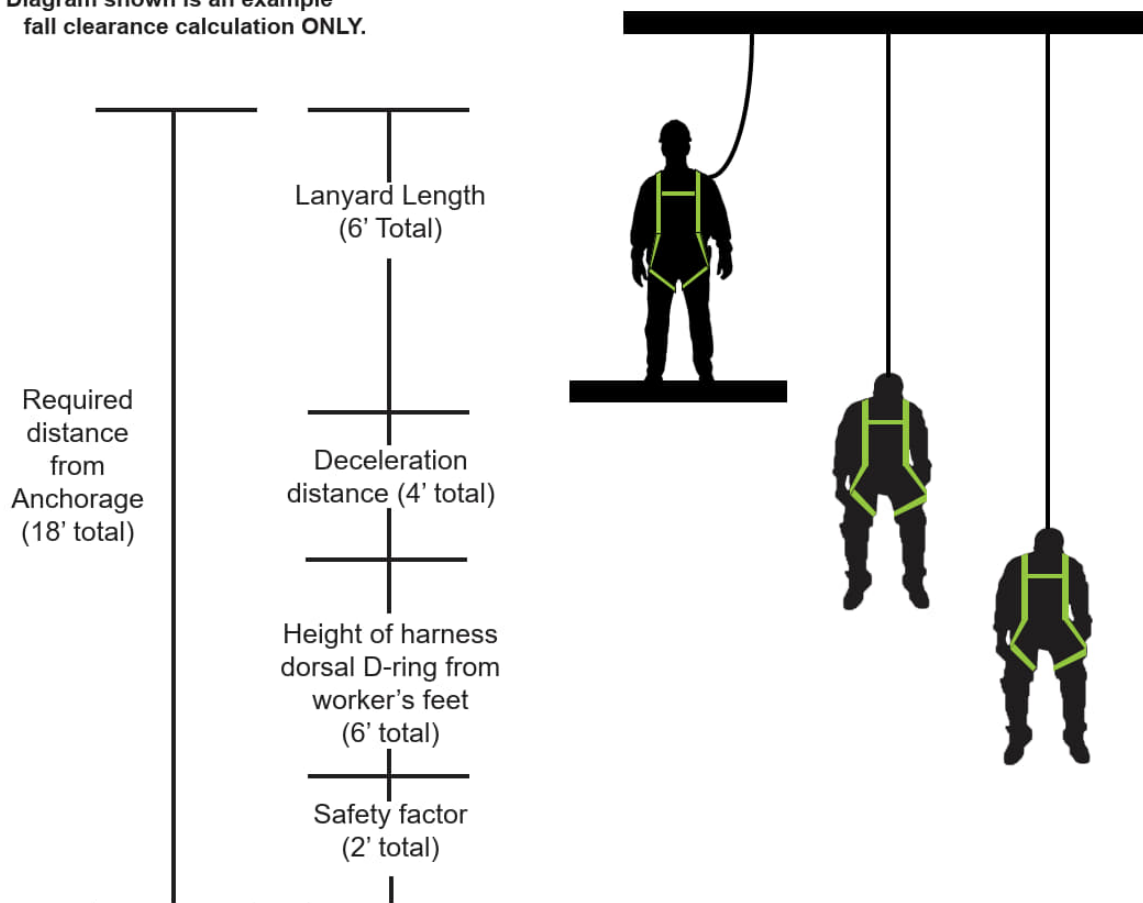
Fall Clearance: There must be sufficient clearance below the anchorage connector to arrest a fall before the user strikes the ground or an obstruction. When calculating fall clearance, account for a MINIMUM 2' safety factor, deceleration distance, user height, length of lanyard/SRL, and all other applicable factors. (See Figure 1)

FIGURE 1

For all applications: worker weight capacity range
(including all clothing, tools, and equipment) is 130-310 lbs

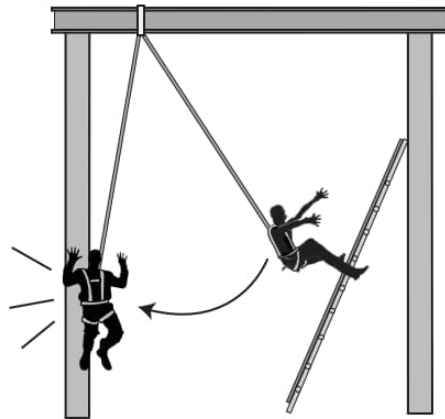
Fall Clearance Diagram

***Diagram shown is an example
fall clearance calculation ONLY.



Swing Falls: Prior to installation or use, make considerations for eliminating or minimizing all swing fall hazards. Swing falls occur when the anchor is not directly above the location where a fall occurs. Always work as close to in line with the anchor point as possible. Swing falls significantly increase the likelihood of serious injury or death in the even of a fall. (See Figure 2)

FIGURE 2



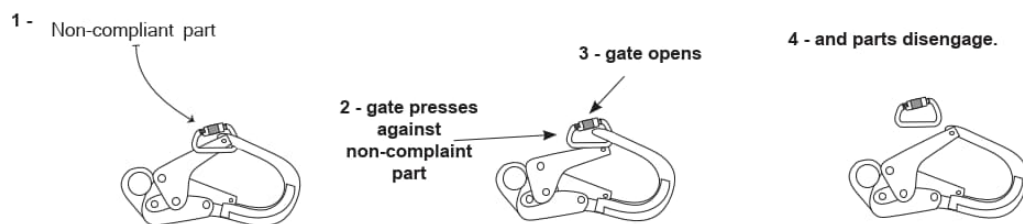
COMPATIBILITY OF CONNECTORS

Connectors are compatible with connecting elements when they have been designed to work together in such a way that their sizes and shapes do not cause their gate mechanisms to inadvertently open regardless of how they become oriented. Connectors (hooks, carabiners, and D-rings) must be capable of supporting at least 5,000 lbs. (22.2 kN). Connectors must be compatible with the anchorage or other system components (see Figure 4). Do not use equipment that is not compatible. Non-compatible connectors may unintentionally disengage (see Figure 3). Connectors must be compatible in size, shape, and strength. Self-locking snap hooks and carabiners are required by ANSI Z359 and OSHA guidelines. Contact SAFEWAZE™ if you have any questions about compatibility.



NOTE: SOME SPECIALITY CONNECTORS HAVE ADDITIONAL REQUIREMENTS. CONTACT SAFEWAZE™ WITH QUESTIONS.

FIGURE 3 - UNINTENTIONAL DISENGAGEMENT



Using a connector that is undersized or irregular in shape (1) to connect a snap hook or carabiner could allow the connector to force open the gate of the snap hook or carabiner. When force is applied, the gate of the hook or carabiner presses against the non-compliant part (2) and forces open the gate (3). This allows the snap hook or carabiner to disengage (4) from the connection point.

MAKING CONNECTIONS

Snap hooks and carabiners used with this equipment must be double locking and/or twist lock. Ensure all connections are compatible in size, shape and strength. Do not use equipment that is not compatible. Ensure all connectors are fully closed and locked.

SAFEWAZE™ connectors (snap hooks and carabiners) are designed to be used only as specified in each product's user's instructions. See figure 4 for examples of inappropriate connections. Do not connect snap hooks and carabiners:

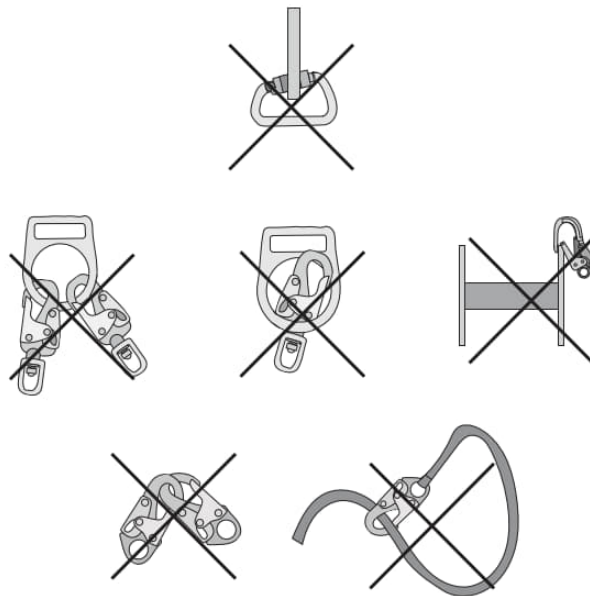
- To a D-ring to which another connector is attached.
- In a manner that would result in a load on the gate (with the exception of tie back hooks).
- NOTE: Large snap hooks must not be connected to objects which will result in a load on the gate if the hook twists or rotates, unless the snap hook complies with ANSI Z359.1-2007 or ANSI Z359.12 and is equipped with a 3,600 lb (16 kN) gate. Check the marking on your snap hook to verify its compatibility.



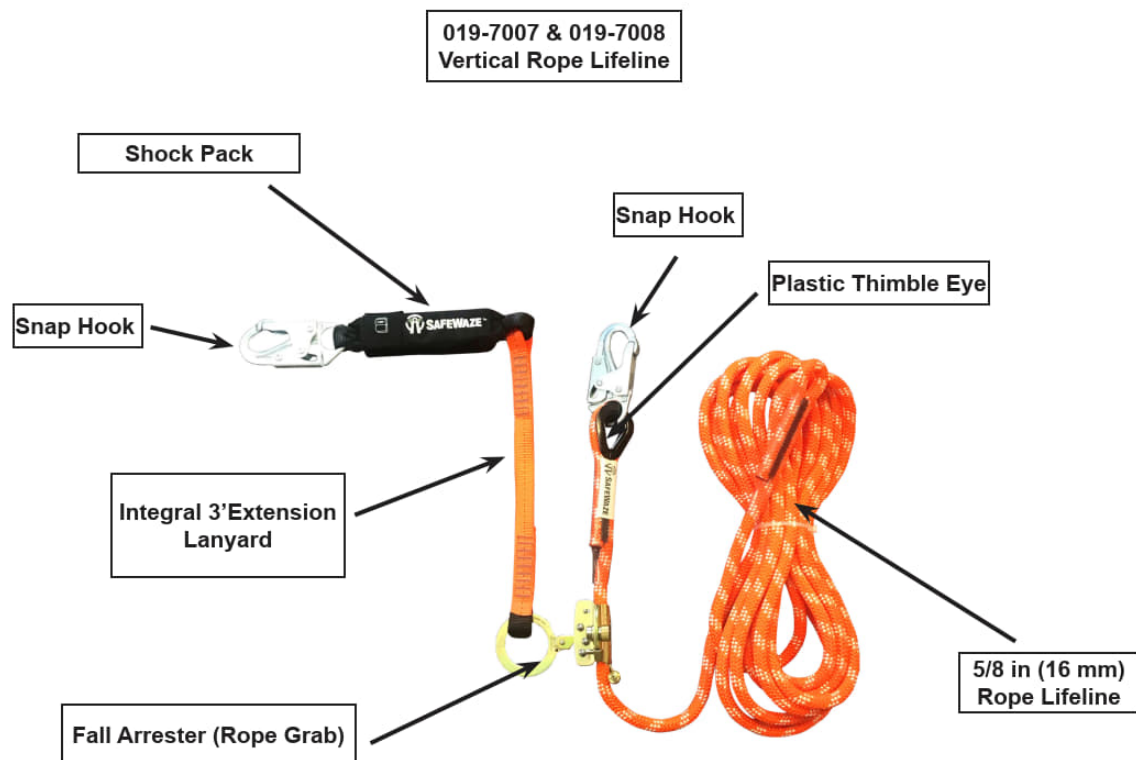
NOTE: Large throat snap hooks must not be connected to standard size D-rings or similar objects which will result in a load on the gate if the hook or D-ring twists or rotates, unless the snap hook complies with ANSI Z359.1-2007 or ANSI Z359.12 and is equipped with a 3,600 lb (16 kN) gate. Check the marking on your snap hook to verify that it is appropriate for your application.

- In a false engagement, where features that protrude from the snap hook or carabiner catch on the anchor, and without visual confirmation seems to be fully engaged to the anchor point.
- To each other.
- By wrapping the web lifeline around an anchor and securing to lifeline except as allowed for Tie Back models.
- To any object which is shaped or sized in a way that the snap hook or carabiner will not close and lock, or that roll-out could occur.
- In a manner that does not allow the connector to align properly while under load.

FIGURE 4 - INAPPROPRIATE CONNECTIONS



Components and Specifications



Installation and Use

1. All risk of lower end termination must be eliminated prior to use. User must ensure that the Vertical Lifeline will prevent striking the next lower level, or that if being used in a leading edge environment, the Lifeline CANNOT reach the leading edge of any fall hazard when being used at it's full length. Knots should NEVER be tied in the Vertical Lifeline, with the exception of the extreme bottom of the lifeline to prevent disengagement of the Fall Arrester (Rope Grab) from the Vertical Lifeline component.
2. User must be aware of, and seek to minimize, any swing fall hazards that may exist.
3. If Vertical Lifeline is purchased with integrated extension lanyard, and shock pack with snap hook, the shock pack will attach directly to the users appropriate D-ring on their Full Body Harness.
4. The Fall Arrester is self trailing and will move in relation to the users movement along the lifeline. The user should always ensure that the Fall Arrester is positioned at least 2' ft or more above the Dorsal D-ring at all times. Never allow the Fall Arrester to be positioned below the Dorsal D-ring on the rope lifeline during vertical work operations.
5. NEVER grab the Fall Arrester (Rope Grab) during a fall! However, the Fall Arrester included with this assembly comes equipped with an Anti-Panic feature which allows the Fall Arrester to function normally if inadvertently grabbed during a fall.

Installation of the FS1120 Fall Arrester

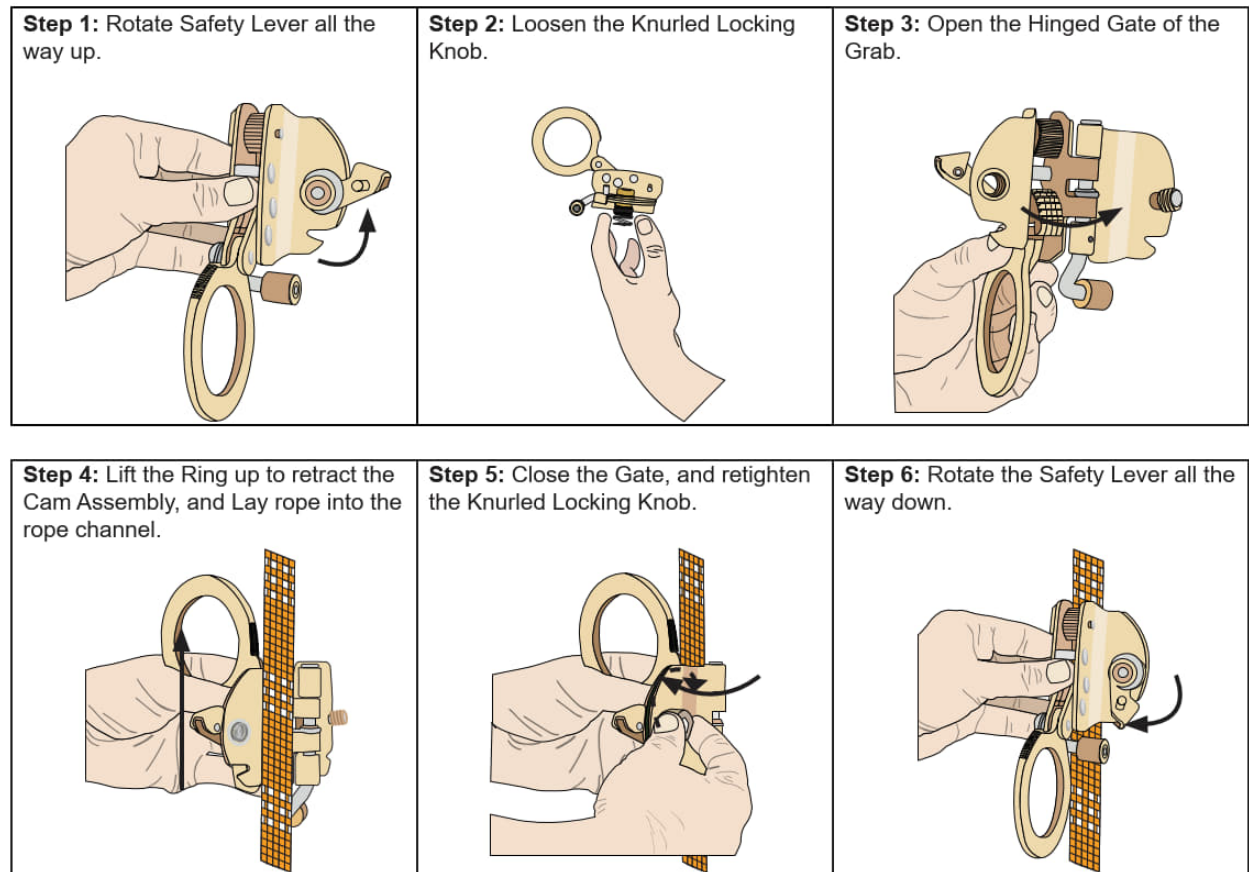
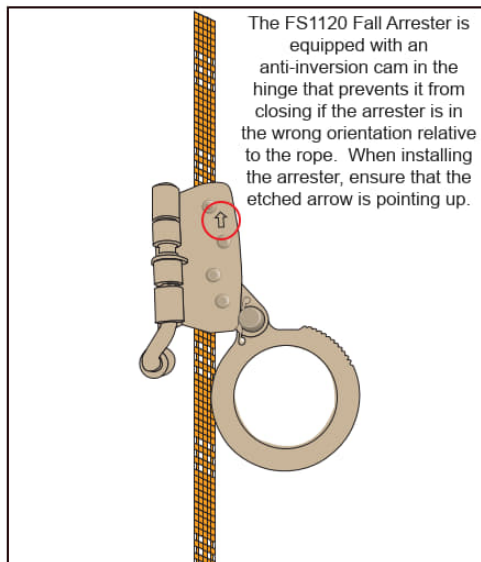


Diagram 1

Diagram 2

Fall Arrester (Rope Grab) on Lifeline



019-7007 / 019-7008 Typical Use Example

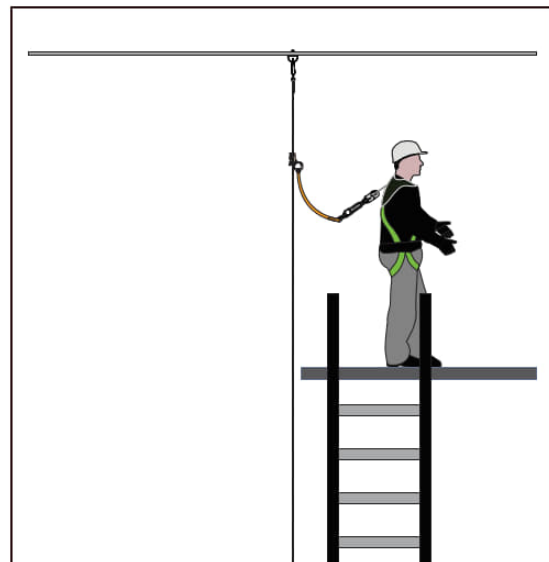


Diagram 3

019-7007 / 019-7008 Typical Use Example



Inspection

USER MUST KEEP INSTRUCTIONS AVAILABLE FOR REFERENCE. Record Date of First Use.

Rope: Prior to each use, inspect the rope for possible deficiencies/damage including, but not limited to, fraying, cuts, corrosion, chemical exposure, melting/damage due to heat, welding, or flame exposure, unsplicing, unlaying, kinking, knotting, broken or pulled stitches, excessive elongation, excessive soiling, abrasion, alteration, excessive lubrication, excessive aging, excessive wear, and missing or illegible labels. User **MUST IMMEDIATELY** remove the Vertical Rope Lifeline from service if defects or damage are found, or if exposed to forces of fall arrest.

Hardware: Prior to each use, inspect hardware for possible deficiencies/damage including but not limited to, cracks, sharp edges, deformation, corrosion, chemical exposure, excessive heating, alteration, and excessive wear.

Fall Arrestor (Rope Grab): Prior to each use, inspect hardware for possible deficiencies/damage including but not limited to, cracks, sharp edges, deformation, corrosion, chemical exposure, excessive heating, alteration, proper function (no movement in stationary mode, free movement in movement mode) and excessive wear.

Inspect work area to ensure that location is free of any damage including, but not limited to, debris, cracking, rot, decay, structural deterioration, rust, and free from any hazardous materials. User must confirm that work area to be utilized will support the application specific loads as referenced within this instruction manual and as per ANSI and OSHA.

At least annually, a Competent Person other than the user must inspect the Vertical Lifeline and/or Fall Arrestor (Rope Grab).

Competent Person inspections must be recorded in the inspection table included in this manual as well as the inspection table labels on each product individually. The Competent Person must place his/her initials in the block which corresponds with the month and year that the inspection is performed. All individual labels on equipment will be initialed in the same manner.

While conducting inspections, the Competent Person must consider all applications and hazards that the equipment may have been subjected to while in use.

Prior to each use, the user must inspect and verify that each individual component of the Vertical Lifeline system is safe for use.

Inspection Log

Date of First Use: _____

Product lifetime is indefinite as long as it passes pre-use and Competent Person inspections. User must inspect prior to each use. Competent Person other than the user must complete formal inspection at least annually. Competent person to inspect and initial table below:

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC

**If equipment fails inspection
IMMEDIATELY REMOVE FROM SERVICE**

Safety Information



Failure to understand and comply with safety regulations may result in serious injury or death. Regulations included herein are not all-inclusive, are for reference only, and are not intended to replace a Competent Person's judgement or knowledge of federal or state standards.

Do not alter equipment. Do not misuse equipment.

Workplace conditions, including, but not limited to, flame, corrosive chemicals, electrical shock, sharp objects, machinery, abrasive substances, weather conditions, and uneven surfaces, must be assessed by a Competent Person before fall protection equipment is selected.

The inspection of the workplace must anticipate where workers will be performing their duties, the routes they will take to reach their work, and the potential and existing fall hazards they may be exposed to. Fall protection equipment must be chosen by a Competent Person. Selections must account for all potential hazardous workplace conditions. All fall protection equipment should be purchased in new and unused condition.

Fall protection systems must be selected and installed under the supervision of a Competent Person, and used in a compliant manner. Fall protection systems must be designed in a manner compliant with all federal, state, and safety regulations. Forces applied to anchors must be calculated by a Competent Person.

Unless explicitly stated otherwise, the maximum allowable free fall distance for lanyards must not exceed 6'. No free fall allowed for non-LE SRLs. Class A SRLs must arrest falls within 24"; Class B SRLs must arrest falls within 54".

Harnesses and connectors selected must be compliant with manufacturer's instructions, and must be of compatible size and configuration. Snap hooks, carabiners, and other connectors must be selected and applied in a compatible fashion. All risk of disengagement must be eliminated. All snap hooks and carabiners must be self-locking and self-closing, and must never be connected to each other.

A pre-planned rescue procedure is required in the event a fall occurs. The rescue plan must be project-specific. The rescue plan must allow for employees to rescue themselves, or provide an alternative means for their prompt rescue. Store rescue equipment in an easily accessible and clearly marked area.

Training of Authorized Persons to correctly erect, inspect, disassemble, maintain, store, and use equipment must be provided by a Competent Person. Training must include the ability to recognize fall hazards, minimize the likelihood of fall hazards, and the correct use of personal fall arrest systems.

NEVER use fall protection equipment of any kind to hang, lift, support, or hoist tools or equipment, unless explicitly certified for such use.

Equipment subjected to forces of fall arrest must immediately be removed from use.


Safety Information (cont)

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

Physical harm may still occur even if fall safety equipment functions correctly. Sustained post-fall suspension may result in serious injury or death. Use trauma relief straps to reduce the effects of suspension trauma.

Label Example

020002




**SAFEWAZE
V-LINE**
322 Industrial Court
Concord, NC 28025
P: (704) 262-7893
www.safewaze.com
XXXXXXX
S/N
MADE IN CHINA

VERTICAL ROPE LIFELINE:

<p><u>PART NUMBER:</u> 019-7007</p> <p><u>ROPE LENGTH:</u> 30 (ft)</p>	<p><u>COMPONENT(S):</u> Kernmantle Rope Lifeline 3' Energy Absorbing Lanyard and Rope Adj/Fall Arrestor Snap Hook</p> <p><u>MATERIAL:</u> Kernmantle rope; steel hardware <u>DIAMETER:</u> 5/8 in (16 mm) <u>MFG Date:</u> MM/YYYY <u>CAPACITY:</u> 310 lbs <u>MAXIMUM ELONGATION:</u> 7% at 1800 lbf <u>MINIMUM BREAKING STRENGTH:</u> 5000 lbf / 22.25 kN</p>
--	---

Meets: OSHA 1926.502 and ANSI Z359.15

020003



**SAFEWAZE
V-LINE**
322 Industrial Court
Concord, NC 28025
P: (704) 262-7893
www.safewaze.com
XXXXXXX
S/N
MADE IN CHINA

VERTICAL ROPE LIFELINE:

<p><u>PART NUMBER:</u> 019-7008</p> <p><u>ROPE LENGTH:</u> 60 (ft)</p>	<p><u>COMPONENT(S):</u> Kernmantle Rope Lifeline 3' Energy Absorbing Lanyard and Rope Adj/Fall Arrestor Snap Hook</p> <p><u>MATERIAL:</u> Kernmantle rope; steel hardware <u>DIAMETER:</u> 5/8 in (16 mm) <u>MFG Date:</u> MM/YYYY <u>CAPACITY:</u> 310 lbs <u>MAXIMUM ELONGATION:</u> 7% at 1800 lbf <u>MINIMUM BREAKING STRENGTH:</u> 5000 lbf / 22.25 kN</p>
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Meets: OSHA 1926.502 and ANSI Z359.15

01143

	J	F	M	A	M	J	J	A	S	O	N	D
INSPECTION LOG												

Do Not Remove Label

WARNING:

Compliant fall protection and emergency rescue systems help prevent serious injury during fall arrest. Avoid contact with sharp edges and abrasive surfaces. Only make compatible connections. Avoid all physical hazards, including, but not limited to, thermal, electrical and chemical sources. Must be inspected before each use. Must be inspected by a competent person every 6 mos from mfg date. Any unit that has been subjected to fall arrest forces must be removed from service. **Must follow mfg's instructions included with the equipment at time of shipment.** For proper equipment usage, see user instructions, visit www.safewaze.com, or call SafeWaze at (704) 262-7893.

DO NOT REMOVE LABEL

WARRANTY



SAFEWAZE™
322 Industrail Court
Concord, NC 28025

PHONE: 1-704-262-7893
FAX: 1-704-262-9051
EMAIL: info@safewaze.com

Web: safewaze.com

Pro 3' Energy Absorbing Lanyard: Snap Hook Instruction Manual



Lanyard Instruction Manual

WARNING
This product is part of a personal fall arrest, work positioning, or rescue system. The manufacturer's instructions must be provided to users of this equipment. The user must follow the manufacturer's instructions for each component of the system. The user must read and understand these instructions before using the equipment. Manufacturer's instructions must be followed for proper use and maintenance of the equipment. Attention to the product, misuse of the product, or failure to follow instructions may result in serious injury or death.

IMPORTANT
Questions regarding the use, care, or suitability of this equipment for your application? Contact SAFEWAZE™.

IMPORTANT
Personal Identification Information before using this product. Identification information may be found on the equipment label (see page 11). This information should be recorded in the "Rescue Log" located at the back of this manual (p. 10).

ANSI Z359.13 - ANSI Z359.3
This manual is intended to meet the manufacturer's instructions as required by ANSI Z359 and should be used as part of an employee training program as required by OSHA.

User Information

Date of First Use: _____

Serial#: _____

Trainer: _____

Do not throw away these instructions!
Read and understand these instructions before using equipment!

INTRODUCTION
Thank you for purchasing an SAFEWAZE™ fall protection lanyard. This manual must be read and understood in its entirety, and used as part of an employee training program as required by OSHA or any applicable state agency.

This manual and any other instructional material must be available to the user of the equipment. The user must understand how to safely and effectively use their full body harness, and all fall protection equipment used in conjunction with the full body harness.

APPLICABLE SAFETY STANDARDS
When used according to instructions, lanyards included in this manual meet all applicable ANSI Z359.1 standards and OSHA regulations for fall protection. Applicable standards and regulations depend on the type of work being done, and may include state-specific regulations. Refer to local, state, and federal (OSHA) requirements for additional information concerning the governing of occupational safety regarding Personal Fall Arrest Systems (PFAS).

WORKER CLASSIFICATIONS
Understand the definitions of those who work in proximity of or may be exposed to fall hazards.

Qualified Person: "Qualified" means one who, by possession of a recognized degree, certificate, or professional standing, or who by extensive knowledge, training, and experience, has successfully demonstrated his ability to solve or resolve problems relating to the subject matter, the work, or the project.

Competent Person: "Competent person" means one who is capable of identifying existing and predictable hazards in the surroundings or working conditions which are unsanitary, hazardous, or dangerous to employees, and who has authorization to take prompt corrective measures to eliminate them.

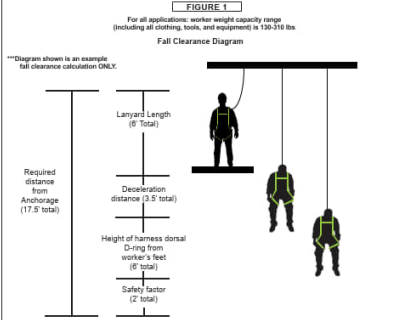
Authorized Person: "Authorized person" means a person approved or assigned by the employer to perform a specific type of duty or duties or to be at a specific location or locations at the job site.

It is the responsibility of a Qualified or Competent person to supervise the job site and ensure safety regulations are complied with.

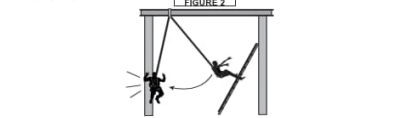
PRODUCT SPECIFIC APPLICATIONS
Purpose: The SAFEWAZE™ FSP, Extreme, and V-Line series of lanyards are designed to be used as part of a Personal Fall Arrest System (PFAS).

- A competent person shall train users on this equipment in accordance with OSHA and ANSI.
- Never exceed a free fall distance of 6 ft. A free fall of more than 6 ft could cause excessive arrest forces that could result in serious injury or death.
- All SAFEWAZE™ lanyards have a maximum capacity of 310 lbs including any tools, clothing, accessories, etc., unless otherwise rated by SAFEWAZE™. NOTE: SAFEWAZE™ HW lanyards are rated to 400 lb maximum capacity.
- Anchorage for attachment of SAFEWAZE™ lanyards shall support a minimum of 5,000 lbs or be designed with a safety factor of two by a Qualified Person.
- All SAFEWAZE™ lanyards must IMMEDIATELY be removed from service if subjected to fall arrest forces.
- SAFEWAZE™ lanyards shall be inspected by the end user prior to each usage and by a Competent Person other than the user at least annually. These annual inspections shall be documented.

LIMITATIONS
Fall Clearance: There must be sufficient clearance below the anchorage connector to arrest a fall before the user strikes the ground or an obstruction. When calculating fall clearance, account for a MINIMUM 2' safety factor, deceleration distance, user height, length of lanyard/SRL, and all other applicable factors. (See Figure 1).

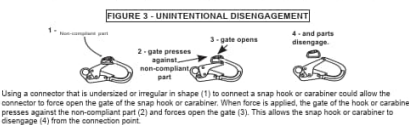


Swing Falls: Prior to installation or use, make considerations for eliminating or minimizing all swing fall hazards. Swing falls occur when the anchor is not directly above the location where a fall occurs. Always work as close to in line with the anchor point as possible. Swing falls significantly increase the likelihood of serious injury or death in the event of a fall. (See Figure 2)



COMPATIBILITY OF CONNECTORS
Connectors are compatible with connecting elements when they have been designed to work together in such a way that their sizes and shapes do not cause their gate mechanisms to inadvertently open regardless of how they become oriented. Connectors (hooks, carabiners, and D-rings) must be capable of supporting at least 5,000 lbs. (22.2 kN). Connectors must be compatible with the anchorage or other system components (see Figure 4). Do not use equipment that is not compatible. Non-compatible connectors may unintentionally disengage (see Figure 3). Connectors must be compatible in size, shape, and strength. Self-locking snap hooks and carabiners are required by ANSI Z359 and OSHA guidelines. Contact SAFEWAZE™ if you have any questions about compatibility.

NOTE: SOME SPECIALTY CONNECTORS HAVE ADDITIONAL REQUIREMENTS. CONTACT SAFEWAZE™ WITH QUESTIONS.



Using a connector that is undersized or irregular in shape (1) to connect a snap hook or carabiner could allow the connector to force open the gate of the snap hook or carabiner. When force is applied, the gate of the hook or carabiner presses against the non-compliant part (2) and forces open the gate (3). This allows the snap hook or carabiner to disengage (4) from the connection point.

CONNECTION
Energy Absorbing Lanyards: Energy absorbing lanyards must be connected with the energy absorbing end of the lanyard connected to the Dorsal D-ring of the full body harness. The opposing end of the lanyard is to be connected to the anchorage connector.

Tie-Back Energy Absorbing Lanyards: Place the Tie-Back Energy Absorbing Lanyard over the qualified anchor, then open the gate of the Tie-Back hook and pass the lanyard through the hook. The lanyard may make more than one wrap around the anchor, but the lanyard may only be passed through the Tie-Back hook once. Pull lanyard hand tight around the anchor and attach the energy absorbing end of the lanyard to the dorsal D-ring of the harness.

Dual Leg Lanyards: Dual Leg Lanyards are designed for single person use only and must be connected with the energy absorbing end of the lanyard connected to the Dorsal D-ring of the full body harness. Do not connect the energy absorbing end of the lanyard to any anchorage connector. Attach one end of the Dual Leg Lanyard to the anchorage connector and the unused lanyard leg to an approved lanyard storage keeper on the full body harness. **Warning:** Never attach the unused leg of the back to the harness at any location other than a lanyard storage keeper.

Soft Loop Energy Absorbing Lanyards: Place the soft loop of the Energy Absorbing Lanyard through the Dorsal D-ring of the full body harness, then pass the snap hook of the Energy Absorbing Lanyard through the soft loop an pull entire Energy Absorbing Lanyard through until tight on the D-ring.

Personal Energy Absorbers: Personal Energy Absorbers should be connected to the Dorsal D-ring of the full body harness first, then connected to the rest of the fall arrest system.

Connecting Personal Energy Absorbers and Energy Absorbing Lanyards to Fall Arresters: Personal Energy Absorbers or Energy Absorbing Lanyards less than 3 feet in length, and less than 2 feet in length for OSA, may be attached to a Fall Arrester. Energy Absorbing Lanyards must be connected with the energy absorbing end of the lanyard connected to the Dorsal D-ring of the full body harness. Personal Energy Absorbers must be connected to the Dorsal D-ring of the full body harness first, then connected to the Fall Arrester. Fall Arresters with permanently attached personal energy absorbers should be connected directly to the Dorsal D-ring of the full body harness.

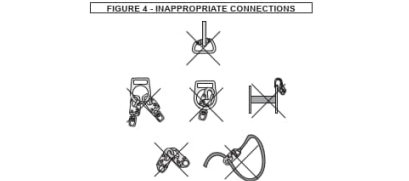
MAKING CONNECTIONS
Snap hooks and carabiners used with this equipment must be double locking and/or twist lock. Ensure all connections are compatible in size, shape and strength. Do not use equipment that is not compatible. Ensure all connectors are fully closed and locked.

SAFEWAZE™ connectors (snap hooks and carabiners) are designed to be used only as specified in each product's user's instructions. See figure 4 for examples of inappropriate connections. Do not connect snap hooks and carabiners:

- To a D-ring to which another connector is attached.
- In a manner that would result in a load on the gate (with the exception of tie back hooks). NOTE: Large snap hooks must not be connected to objects which will result in a load on the gate if the hook twists or rotates. Snap hooks marked with ANSI Z359.1-2007 or ANSI Z359.12 and are equipped with a 3,600 lb (16 kN) gate. Check the marking on your snap hook to verify its compatibility.

NOTE: Large throat snap hooks must 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, unless the snap hook complies with ANSI Z359.1-2007 or ANSI Z359.12 and is equipped with a 3,600 lb (16 kN) gate. Check the marking on your snap hook to verify that it is appropriate for your application.

- In a false engagement, where features that protrude from the snap hook or carabiner catch on the anchor, and without visual confirmation seems to be fully engaged to the anchor point.
- To each other.
- By wrapping the web lifeline around an anchor and securing to lifeline except as allowed for Tie Back models (see section 4.5).
- To any object which is shaped or sized in a way that the snap hook or carabiner will not close and lock, or that will not disengage.
- In a manner that does not allow the connector to align properly while under load.



PERFORMANCE
6 Foot Free Fall: Personal Energy Absorbers and Energy Absorbing Lanyards marked to ANSI Z359.13-09 and rated for a 6 foot free fall, have an average arrest force of 800 lbf (4 kN) or less, and a maximum deployment distance of 48 inches (1087 mm) when dynamically tested in accordance with the requirements of the ANSI Z359.13-09 standard.

12 Foot Free Fall: Personal Energy Absorbers and Energy Absorbing Lanyards marked to ANSI Z359.13-09 and rated for a 12 foot free fall, have an average arrest force of 1,350 lbf (6 kN) or less and a maximum deployment distance of 60 inches (1524 mm) when dynamically tested in accordance with the requirements of the ANSI Z359.13-09 standard.

ANSI Z359.1-07: Personal Energy Absorbers and Energy Absorbing Lanyards marked ANSI Z359.1-07 have a maximum arrest force of 900 lbf (4 kN) or less, and a maximum deployment distance of 42 inches (1067 mm) when dynamically tested in accordance with the requirements of the ANSI Z359.1-07 standard.



All above referenced applications have a worker weight capacity range of 310 lbs (including all clothing, tools, and equipment).



- Users should consult with their doctor to verify ability to safely absorb the forces of a fall arrest event. Fitness level, age, and other health conditions can greatly affect an individual's ability to safely absorb the forces of a fall arrest event. Pregnant individuals considered minors must not use any SAFEWAZE® equipment.
- **Never** allow any part of a lanyard or addendome components, SAFEWAZE™, shall not be held responsible for injury or death due to tampering.
- Lanyards that are exposed to fall arrest forces **MUST** be **IMMEDIATELY** removed from service and destroyed.
- Failure to follow these instructions and warnings could result in serious injury or death in the event of a fall.
- A unplanned rescue procedure in the event of a fall is required. The rescue plan must be specific to the project. The rescue plan must allow for employees to rescue themselves, or to be promptly rescued by alternative means.
- Harnesses or connectors selected for use with any SAFEWAZE™ lanyard must compatible in size and configuration. User must ensure compatibility of snap hooks, carabiners and other components of the connection which could allow disengagement must be eliminated. Snap hooks and carabiners must be self locking and self closing and must never be hooked to anything other than a lanyard.
- A Competent Person must conduct an analysis of the workplace and anticipate where workers will be conducting their duties, the results they will take to reach their work, and the existing and potential fall hazards they may be exposed to. The Competent Person must choose the fall protection equipment to be utilized.
- Do not misuse equipment.
- Equipment designated for fall protection must never be used to lift, hang, support or hold anything other than a person specifically certified for such use.

- **SAFE/WAZE™** Lanyards shall be inspected prior to each use by the user and at least annually by a Competent Person. Annual inspections shall be documented. Severity of conditions during use may necessitate increased frequency of documented inspections.
- Lanyards that fail inspection **MUST** be removed from service and destroyed immediately.
- All components of the Lanyards shall be inspected. Hardware inspection will include all Snap Hooks, D-rings, Web, Adjusters, and Rope or Cable (if applicable).
- Snap Hooks, D-rings, and Adjusters should have smooth surfaces with no indication of corrosion or damage that could negatively impact harness webbing.

1. Excessive Wear	8. Mold or Mildew
2. Cuts	9. Broken Stitches
3. Abrasions	10. Alterations and Additions
4. Undue Stretching	11. Rust, Oxidation, or Corrosion
5. Chemical Exposure	12. Legibility of Labeling
6. Burns or Excessive Heat	13. Deformation
7. Welding Spatter	14. Discoloration or Abraded Appearance

**IF ANY OF THESE CONDITIONS EXIST
LANYARD MUST BE REMOVED FROM SERVICE**

SAFEWAZE™ Lanyards can be cleaned with water and mild soap and hung to air dry. Do not use chemical cleaners, harsh detergents, or solvents. Do not dry harness with heat.

Hardware can be wiped off with a clean, dry cloth.

Hardware can be wiped off with a clean, dry cloth.

Hardware can be wiped off with a clean, dry cloth.

Hardware can be wiped off with a clean, dry cloth.


Hardware can be wiped off with a clean, dry cloth.

SAFEWAZE™ warrants its products are free from defects in materials and construction under normal use and service. Liability is not accepted for abuse, modification, improper use, destructive activity and contaminated exposure.

[illegible]

Warning: User Capacity Range 130-310 lbs.
6ft. 900lbs.
Maximum Free Fall Average Arresting Force
Maximum Deployment Distance 48"
Forces may increase when cold and/or wet
Read Instructions Before Use

SAFEWAZE™
322 Industrial Court
Concord, NC 28025
P: (704) 262-7893
F: (704) 262-9551
www.safewaze.com

SAFENAZE	MODEL #: FS560 6 FT ENERGY ABSORBING LANYARD						
 Industrial Card GEAC INC. NC-3633 P : 704.262.3300 F : 704.262.6000 www.geacinc.com	SERIAL # 0001 EXP DATE: 02/27/16	STANDARDS AND REGULATIONS ANSI Z559.3	MAX ELONGATION 48 in. (1219 mm)	FREE FALL LIMIT 0 ft (0 m)	MAX ARREST FORCE 1000 lbf (4 kN)	Avg ARREST FORCE 500 lbf (2 kN)	CAPACITY 130 x 10 lbs (59 x 41 kg)
MATERIALS Polyester webbing Snap Hooks	DIN/AE 28 CFR 10516 BSI EN 1263-2	42 in. (1067 mm)	0 ft (0 m)	1000 lbf (4 kN)	N/A	310 lbs (141 kg)	



SAFEWAZE™

322 Industrial Court
Corvallis, OR 97330
P: (503) 262-7983
F: (503) 262-0051
www.safewaze.com



FS33210

MODEL #: FS33210 6 FT (3/8 IN) ROPE POSITIONING LANYARD
NOT TO BE USED FOR FALL ARREST

SERIAL #: 1103001

WEIGHT: 1.1 LB

WEAVE: 6/32

NOTES: MATERIALS: Polypropylene, steel hardware
 MAX WEIGHT CAPACITY: 310 LB
 JOINT CONNECTIONS: BY SHOCK ENDS AND APPROPRIATE SURFACES
 LANYARD IS FOR POSITIONING AND / OR RESTRAINT
 ONLY MAKE COMPATIBLE CONNECTIONS
 DO NOT REMOVE LABEL

MUST FOLLOW ALL MPFC'S INSTRUCTIONS INCLUDED WITH THE EQUIPMENT

DATE: JUL 2008 **AND ASSE:** 7349.0



SAFEWAZE™

322 Industrial Court
 Port Jervis NSW 2822
 P (08) 462 7363
 F (08) 462 0051
www.safewaze.com

MODEL # F68000 | 6 FT STRETCH LOW PROFILE LANTANA W-0-RXNO

MATERIALS: Polymer welded steel reinforcement

NOTES: 1. SEE SAFETY CATALOG FOR DIMENSIONS
 2. SEE SAFETY CATALOG FOR CONNECTIONS

STRETCH AND ANALYSIS	REIN. CLOSURE		TIE-BAR PLACEMENT		REIN. JOINTS		REIN. JOINTS		COST/MT
	W-0	W-1	W-0	W-1	POUR	POUR	POUR		
6 FT STRETCH	1.0000	1.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	10.0000
12 FT STRETCH	1.0000	1.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	10.0000
18 FT STRETCH	1.0000	1.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	10.0000
24 FT STRETCH	1.0000	1.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	10.0000
30 FT STRETCH	1.0000	1.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	10.0000
36 FT STRETCH	1.0000	1.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	10.0000
42 FT STRETCH	1.0000	1.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	10.0000
48 FT STRETCH	1.0000	1.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	10.0000
54 FT STRETCH	1.0000	1.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	10.0000
60 FT STRETCH	1.0000	1.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	10.0000

SAFEWAZE™														DO NOT REMOVE LABEL
		T	F	M	W	T	F	S	S	S	S	S	S	
15.														
16.														
17.														
18.														

INSPECTION LOG



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