



INSTRUCTIONS FOR USE



TYPHOON 3 D-RING SAFETY HARNESS WITH BACK SUPPORT - MODEL NO. KS6606

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WARNING

This manual must be read and understood in its entirety and used as part of fall protection training program as required by OSHA or any state regularity agency. These instructions are intended to meet the manufacturer instructions as required by ANSI Z.359.11-2014. The user must fully understand proper equipment use and limitations.



Do not skip this instruction manual. Read the instruction manual carefully before using the equipment. FAILURE TO HEED ANY OF THESE WARNINGS MAY RESULT IN SEVERE INJURY OR DEATH.

WARNING!

- This product is part of a personal fall arrest, restraint, work positioning, suspension, or rescue system. A Personal Fall Arrest System (PFAS) is typically composed of an anchorage and a Full Body Harness (FBH), with a connecting device, i.e., a Shock Absorbing Lanyard (SAL), or a Self-Retracting Device (SRD), attached to the dorsal D-Ring of the FBH. These instructions must be provided to the user of this equipment.
- Use caution when using components or subsystems, or both, which may affect or interfere with the safe function of each other.
- The need to make only compatible connection and limitations of compatibility.
- Alterations or misuse of this product, or failure to follow instructions, may result in serious injury or death.
- Proceed with caution when exposing the product to chemicals which may produce a harmful effect. Consult with the manufacturer in cases of doubt.
- Do not alter or intentionally misuse this equipment. Consult KwikSafety when using this equipment in combination with components or subsystems other than those described in this manual. Some subsystem and component combinations may interfere with the operation of this equipment. Proceed with caution when using this equipment near moving machinery, electrical hazards, chemical hazards, and sharp edges.
- The user must read and understand the manufacturer's instructions and labels for each component or part of the complete system. Manufacturer's instructions and labels must be followed for proper use, care, and maintenance of this product. These instructions must be retained and be kept available for the user's reference at all times. Do not remove or alter labels.
- A Fall Protection Plan must be on file and available for review by all users. It is the responsibility of the user and the purchaser of this equipment to assure that users of this equipment are properly trained in its use, maintenance, and storage.
- Training must be repeated at regular intervals. Training must not subject the trainee to fall hazards. When this equipment is in use the employer must have a rescue plan and the means at hand to implement it and communicate that plan to users, authorized persons, and rescuers.
- Consult a doctor if there is reason to doubt your fitness to safely absorb the shock of a fall event. Age and fitness seriously affect a worker's ability to withstand falls. Pregnant women or minors must not use this equipment.



PURPOSE

The KwikSafety Full Body Harness (FBH) is designed for use as a component in a PFAS, to provide a combination of worker mobility and fall protection as required for inspection work, general construction, maintenance work, confined space work, or any application where fall protection is required. KwikSafety harnesses are ANSI Z359.11-2014 compliant and meet all OSHA regulations.

USE AND LIMITATIONS

This product meets the requirements of ANSI/ASSE Z359.11-2014 Safety Requirements for Full Body Harnesses.

1. Approved Applications

KwikSafety Full Body Harnesses (FBH) are available in a wide variety of different configurations to address the specific needs in nearly every workplace. The suitability of a Full Body Harness for a specific application is determined primarily by the type and location of the D-ring or D-rings on the FBH. Below is a summary of the approved applications for each D-ring location on the FBH. This list is not all-inclusive, but is intended to anticipate the most common applications in which this product may be used. If you have questions about whether this product is suitable for your particular application, please consult a competent person or contact KwikSafety for further advice.

Back D-Ring: Also referred to as a dorsal D-ring, this attachment point is located on the back of your KwikSafety FBH. When the FBH is worn and properly adjusted, this D-ring should be located between your shoulder blades. This D-ring is intended to be used for fall arrest and may also be used for fall restraint. Appropriate connecting devices for these applications would be Shock Absorbing Lanyards, Self-Retracting Lifelines and Restraint Lanyards. All KwikSafety Full Body Harnesses have a back D-ring and may be used for fall arrest and restraint.

Side D-Rings: Also referred to as hip D-rings and located adjacent to each hip, are intended for work positioning on a vertical surface (such as in tower applications, rebar tying, etc.). These may be an integral part of the FBH, attached to the front torso webbing in the area of the hips, or may be an integral part of a belt assembly or waist pad. Side D-rings should never be used for fall arrest or restraint, and should never be used as a lanyard keeper or for any other purpose.



Front D-Ring: Located on the chest strap or adjacent to the user's sternum on cross-over styles, this d-ring is intended for climbing applications for the purpose of fall arrest, provided that the user is exposed to a maximum of 2 feet of free fall. Front D-rings should never be used for positioning, restraint of fall arrest applications where more than 2 feet of free fall may be possible.

If you have any questions regarding the suitability of this product for your specific application, please consult with a competent person or contact KwikSafety before using. Misuse of this product may result in serious injury or death.

2. Restricted Applications

Not all Full Body Harnesses are built alike, and each product has different features. There are some applications for which our products may not be ideally suited. Below are a few restrictions to consider before using your KwikSafety Full Body Harness:

Harsh Chemical Environments: Acids and other caustic chemicals may cause damage to this FBH, its components and other elements for your Personal Fall Arrest System (PFAS). Damage from chemical exposure can be difficult to detect and KwikSafety recommends inspection before each use and frequent replacement.

Arborist Applications: This product should never be used in arborist applications or tree-trimming applications

Heavyweight: Most KwikSafety FBHs are rated for a maximum capacity of 310 lbs (user, clothing, tools and equipment). Be sure to check the product label for the capacity of your specific product

Use of this equipment in areas containing physical or environmental hazards may require that additional precautions be taken to reduce the possibility of damage to this equipment or injury to the user. Hazards may include, but are not limited to: high heat, strong or caustic chemicals, corrosive environments, the possibility of electric current flowing through this equipment when working near high voltage power lines, explosive or toxic gases, moving machinery, severe cold, or sharp edges. Contact KwikSafety if you have any questions about the application of this equipment in areas where physical or environmental hazards are present. This equipment is intended to be installed and used by persons who have been properly trained in its correct application and use.

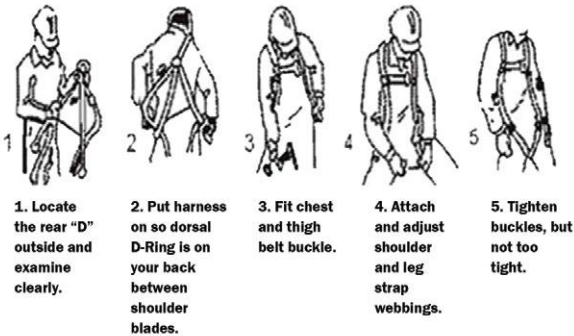
3. Fitting Instructions



Full Body Harness should be worn with all straps buckled and adjusted at all times. The FBH should be adjusted to fit snugly, and adjustments should be checked frequently as the webbing can shift or slip during the course of work. Failure to properly don, wear and adjust the FBH can result in severe bodily injury or death in the event of a fall.

To ensure proper donning and adjustment, follow the five simple steps in figure below:

FITTING INSTRUCTIONS



4: Instructions for Use by Application

Fall Arrest and Restraint:

All KwikSafety Full Body Harnesses containing a back D-ring may be used for Fall Arrest and Restraint applications. Before working in the vicinity of a fall hazard, follow the steps below:

1. Select the appropriate KwikSafety FBH based on the work conditions, specific hazards and the weight of the user.
2. Read, understand and comply with manufacturer's instructions for each component of your Personal Fall Arrest System (Full-Body Harness, Connecting Devices, Anchorage Connectors, etc.). Be sure to choose components that are compatible with this FBH. If you have questions about product or component compatibility, be sure to contact KwikSafety for additional instructions.
3. Calculate possible swing fall hazards, total fall distance, and required clearance distance. **(WARNING: Include FBH Stretch of 6.2 inches, D-Ring/connector length, setting of user's body,**



and all other contributing elements when calculating fall clearance.) If you have a swing-fall hazard or do not have the required clearance distance, STOP and reevaluate your application and system. Your work location should never exceed an angle of 15 degrees in any direction in relation to your anchorage location.

4. Inspect this Full Body Harness, and all components of your Personal Fall Arrest System. Be sure to consult, and adhere to the instructional materials, labels and warnings accompanying the other components of your PFAS as well.

5. Adjust your Full Body Harness

6. If using a Shock-Absorbing Lanyard or a Restraint Lanyard, Attach the Lanyard to the back D-ring of your full body harness by connecting the double-locking snap hook or carabiner directly adjacent to the shock absorber to the back d-ring. Ensure that the gate on the snap hook or carabiner closes and latches securely and automatically. If using a Self-Retracting Lifeline or SRL, skip steps 7 and 8 below and go to step 9.

7. Attach the anchorage end (or ends) of your lanyard to the lanyard keeper(s) located adjacent to the chest strap. Never attach the anchorage ends (or free ends) of your lanyard to any other point on your FBH.

8. Proceed to your work location and immediately attach the anchorage end of your lanyard to the anchorage connector located closest to your work location. Ensure the anchorage end connector on your lanyard is securely latched before proceeding with your work, remaining tied-off at all times

9. If using a Self-Retracting Lifeline or SRL, proceed carefully to your work location and ensure that the SRL is properly attached to the anchor point closest to your work area. Ensure proper function of the SRL, in accordance with the manufacturer's instructions. Attach the double-locking snap hook or carabiner on the SRL to the back D-ring of your Full Body Harness and ensure that the gate is closed and latched. Proceed with your work while remaining tied-off at all times.

10. Work carefully and move deliberately at all times while you are tied-off near any fall hazard. Be aware of your surroundings and avoid tripping hazards and any materials or equipment that may be



in your way. Sudden movements may result in engagement of your connecting device, causing you to lose your balance.

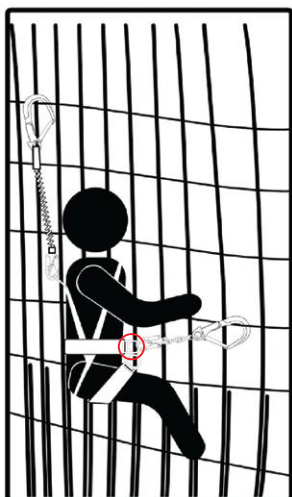
Work Positioning:

Some KwikSafety Full Body Harnesses which are equipped with side or hip D-rings may be used for work positioning.

1. Select the appropriate KwikSafety FBH based on the work conditions, specific hazards and the weight of the user.
2. Read, understand and comply with manufacturer's instructions for each component of your Work Positioning/Personal Fall Arrest System (Full Body Harness, Positioning Assembly, SAL/SRL, Anchorage Connectors, etc.). Be sure to choose components that are compatible with this FBH. If you have questions about product or component compatibility, be sure to contact KwikSafety for additional instructions.
3. Calculate possible swing fall hazards, total fall distance, and required clearance distance. If you have a swing-fall hazard or do not have the required clearance distance, STOP and reevaluate your application and system. Your work location should never exceed an angle of 15 degrees in any direction in relation to anchorage location.
4. Inspect this Full Body Harness, and all components of your Work Positioning/PFAS. Be sure to consult, and adhere to the instructional materials, labels and warnings accompanying the other components of your PFAS as well.
5. Adjust your Full Body Harness
6. Attach the one of the small double-locking snap hooks on the legs of your Positioning Assembly to the side or hip D-rings on your FBH. Each of the two small snap hooks must be attached to its own side or hip D-ring (in the case of a spreader hook assembly, each side of the hook should be attached to its own side or hip D-ring).
7. Proceed or ascend to your work location, using your back-up Shock-Absorbing Lanyard to tie-off to the structure as you ascend, if at all practicable. A "Y-leg" or 100% tie-off lanyard is ideally suited to this activity, allowing you to remain protected at all times. Once in place, attach the large double-locking snap hook (rebar hook) in the center of your positioning assembly to your anchor point.



8. Be sure to also tie-off with a Shock-Absorbing Lanyard or Self-Retracting Lifeline attached to the back D-ring of your FBH. When positioning, you must always use a back-up fall arrest connecting device to prevent a fall in the event of an accidental disengagement of your Positioning Assembly. Failure to do so may result in serious bodily injury or death.
9. Ensure that your Positioning Assembly is tied-off, limiting your free-fall to 2 feet or less. Always ensure that your side or hip d-rings are below the level of your anchorage while positioning (see figure below).
10. Ensure that your back-up fall arrest connecting device is rigged to allow no more than 6 feet of free-fall. It should be anchored at or above the level of your back D-ring while you are positioning (see figure below).
11. Once your positioning assembly and back-up fall arrest connecting device are attached to the anchorages, carefully lean back into a comfortable work position and proceed with your assigned tasks. Always maintain three points of contact (both feet, and your positioning device) while working hands-free.
12. If you need to move to another work position, carefully disconnect your Positioning Assembly from your anchorage and proceed to your next work position. Ensure that you use your back-up fall arrest connecting device to remain tied-off at all times.



Typical Work Positioning with Side/Hip D-Rings

WARNING: Side/hip D-rings must never be used for any purpose other than work positioning, and no connections of any kind should ever be made to a side or hip D-ring, except for work positioning. **NEVER** attach a Shock-Absorbing Lanyard or Self-Retracting Lifeline to side/hip or seat sling D-rings. **NEVER** use side/hip and seat sling D - rings as a lanyard keeper. Misuse of these D-rings may result in serious bodily injury or death.

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dy Harnesses are equipped with a front
rest strap (or at the center of the chest, in

the case of cross-over style FBH's). This front D-ring is to be used for climbing fixed ladders and other ascent/descent systems. This front D-ring should be used only with systems that limit free-fall to 2 feet or less.

1. Select the appropriate KwikSafety FBH based on the work conditions, specific hazards and the weight of the user.
2. Read, understand and comply with manufacturer's instructions for each component of your Personal Fall Arrest System (Full Body Harness, Connecting Device, Anchorage Connectors, etc.). Ensure that you have been fully instructed on the use and care of any fixed ladder or ascent/descent system that you will be required to use. Be sure to choose components that are compatible with this FBH. If you have questions about product or component compatibility, be sure to contact KwikSafety for additional instructions.
3. Calculate possible swing fall/clear fall hazards, total fall distance, and required clearance distance. If you have a swing-fall hazard or do not have the required clearance distance, STOP and reevaluate your application and system.
4. Inspect this Full Body Harness. Be sure to consult, and adhere to the instructional materials, labels and warnings accompanying the other components of your PFAS as well.
5. Don and adjust your Full Body Harness.
6. Attach the trolley or fall arrestor (i.e. cable grab) to the front D-ring of your FBH using a carabiner or integral double-locking snap hook. Ensure that gate is closed and latched and make sure that there is no unnecessary slack in your chest strap.
7. Climb (ascend or descend) carefully and at a comfortable pace using a back-up fall arrest connecting device (attached to the back D-ring of your full body harness and tied off to the ladder or structure) wherever and whenever practicable.
8. Should you need to stop and rest during your ascent or descent, be sure to tie-off with your back-up fall arrest connecting device while you are resting.
9. Once you have reached the exit platform or work location, be



sure to tie-off with your back-up fall arrest connecting device prior to disengaging your front D-ring from the climbing system.

10. Proceed to your work location, remaining tied-off at all times when exposed to fall hazards.

5.MAINTENANCE, SERVICE AND STORAGE

Clean the webbing and hardware with warm water and mild detergent solution. DO NOT use bleach or bleach solutions. Dry hardware with a clean, dry cloth, and hang to air dry. DO NOT use a power washer or dry with heat in a laundry dryer. DO NOT attempt to disassemble the unit. A buildup of dirt, solvents, paint, etc. may prevent the harness from working properly, and in severe cases degrade the webbing. If you have questions concerning the condition of your harness, remove it from service and contact KwikSafety. Store harnesses in a cool, dry, clean environment out of direct sunlight. Avoid areas where heat, oil, chemicals or their vapors may exist. Thoroughly inspect the harness after extended storage.

6.INSPECTION

Mandatory Inspection: ANSI Z359 requires that fall protection equipment be inspected by a competent person other than the user at least once every six months. Harsh conditions may accelerate wear and corrosion and require more frequent inspections.

Inspection Procedure: Inspect all webbing (straps) and stitching for:

1. Pulled or broken threads
2. Cuts and fraying
3. Abrasion
4. Excessive wear
5. Burns, heat and chemical degradation

Broken stitches or separation of webbing could indicate that the harness is damaged and must be removed from service.

Inspect all metallic hardware (D-Rings, buckles, adjusters, etc.) for:

1. Deformation
2. Fractures, cracks, pitting
3. Corrosion
4. Burrs, sharp edges, cuts, deep nicks
5. Missing or loose parts




6. Improper function

7. Evidence of excessive heat, chemical, or electrical exposures
 Ensure snap hook gates close and lock. All labels should be present and fully legible. Punch or mark the inspection label. Record the results of the inspection on the Inspection Record. **If inspection reveals a defective condition, improper maintenance, or evidence of arresting a fall, remove the unit from service immediately.**

IMPROPTANT: Only KwikSafety or parties authorized in writing may make repairs to this equipment and requires that the authorized person be provided a rescue plan and appropriate training before using the equipment where suspension could occur. This inspection should be noted in the inspection log on the next page, along with any deficiencies.

9. LABELS

Product labels must be present and legible. If they are not, remove the product from service.



ANSI Z359.11-2014
 ANSI Z359 recognizes the use of this harness only within the capacity range of:
130-310 lbs.

COMPLIANT WITH: OSHA 1910, OSHA 1926 Subpart M, ANSI Z359.13-2013, and ANSI A10.32-2012.
CAPACITY RANGE: 130-310 lbs. Make only compatible connections. Prior to use, inspect equipment for rips, tears, fraying, or any possible structural deficiency that might compromise the equipment in a fall. Avoid contact with sharp and abrasive surfaces.

CUMPLIRCON: OSHA 1910, OSHA 1926 Subpart M, ANSI Z359.13-2013, ANSI A10.32-2012.
RANGO DE CAPACIDAD: 130-310 lbs. Nombré haga compatible conexiones. Inspeccionar el equipo antes de usar: que no este desgarrado, desfilachado, deshebrado o cuál es que estructural incapacidad que pueda comprometer el equipo en una caída. Evitar contacto con orillas filosas o abrasivo.

Designed in USA / Diseñado en USA



DO NOT REMOVE THE TAG

TYPHOON FULL BODY HARNESS Max. Arrest Force: 1800 lbs
 ANSI Z359.11-2014

Model No.: KS6606
Style: Universal Sizing
Material: Polyester Webbing
Date of Mfg: XX/XXXX
Serial No.: XXXX
Batch No.: XXXXX

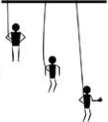
ANSI Z359 recognizes the use of this harness only within the capacity range of 130 - 310 lbs.
 D-Rings (Back for Full Arrest, Side for Postfalling Only)

ANSI/ASSE Z359.11-2014
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 PACKAGE AND PRODUCT
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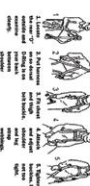
WARNINGS
 All manufacturer's instructions, labels, and warnings must be read before use and followed at all times. Avoid contact with sharp or abrasive edges and surfaces. Use only approved connecting devices.

For T type (2 leg) laprands with integrally connected legs, only attach snap hook at the center of the laprand to the full arrest attachment D-Ring of the full body harness. Failure to be familiar with and to comply with the instructions and labels may result in serious injury or death.



FALL CLEARANCE CALCULATION
 Add the following:
 1. Safety Lanyard Length: 6 ft
 2. Shock Absorber Length: 6 ft (48")
 3. Average height of worker: 6 ft
 4. Safety factor: 2 ft (For improperly fitted harnesses)
 Total suggested safe fall clearance distance: 18 ft
 Proper anchorage must support 5,000 lbs while allowing for safe clearance.

FITTING INSTRUCTIONS



ANSI Z359.11-2014 requires the use of this harness only within the capacity range of 130 - 310 lbs.
 D-Rings (Back for Full Arrest, Side for Postfalling Only)

P	J	F	M	A	M	J	A	S	I	O	N	D

Check this box if you intend to use this harness for fall arrest.
 Mark or check on each page
 At the end of each work shift
 Remove this tag from the harness
 If you do not remove this tag, the harness is not for use.
 If you do not remove this tag, the harness is not for use.
 If you do not remove this tag, the harness is not for use.

2. This tag must remain attached to the harness at all times.
 3. Do not remove this tag from the harness at any time.
 4. Do not use this harness if the tag is missing or damaged.

INSPECTION LOG

SERIAL NUMBER:

MODEL NUMBER:

DATE PURCHASED:

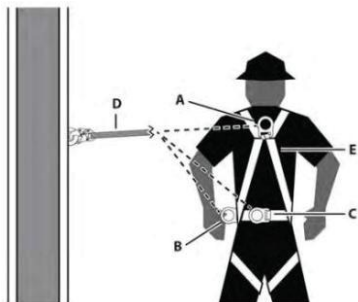
DATE FIRST USED:

Inspection Date	Inspection Items Noted	Corrective Action	Maintenance Performed	Approved by:



3 D-Ring Safety Harness with Back Support Features

A	Dorsal D-Ring
B	Fall Arrest Indicator Tags
C	Nylon Padded Back Support
D	Nylon Padded Shoulder Support
E	Detachable ID/Cellphone Pocket
F	Side D-Rings (x2) for Positioning
G	Adjustable Leg Grommet Straps with Buckles



Suitable Attachment Methods for Restraint

A	Connection to Dorsal D-Ring on Harness
B	Connection to Side D-Ring on Harness
C	Connection to Lumbar D-Ring on Restraint Belt
D	Restraint Lanyard
E	Full Body Harness (FBH)



Annex A – Normative

Note: This information from the Z359.11 standard is required to be included in the instruction manual for the end user:

ANSI/ASSE Z359.11-2014 Requirements for Proper Use and Maintenance of Full Body Harnesses

(Note: These are general requirements and information provided by ANSI/ASSE Z359.11-2014, the Manufacturer of this equipment may impose more stringent restrictions on the use of the products they manufacture, see the Manufacturer's instructions.)

1. 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 Z359.11-2014, Mini-mum 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.
2. Correct fit of a Full Body Harness is essential to proper performance. Users must be trained to select the size and maintain the fit of their Full Body Harness.
3. 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.
4. Full Body Harnesses which meet ANSI/ASSE Z359.11-2014 are intended to be used with other components of a Personal Fall Arrest system that limit maximum arrest forces to 1800 pounds (8 kN) or less.
5. 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.
6. Full Body Harness (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.
7. When not in use, unused lanyard legs that are still attached to a Full Body Harness D-ring should not be attached to a work positioning element or any other structural element on the



Full Body Harness 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.

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

9. 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.

Sections 11-17 provide additional information concerning the location and use of various attachments that may be provided on this FBH.

0. 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 Full Body Harness 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 different user sizes, and allow a more vertical rest position post fall, but can increase FBH Stretch.

11. 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 a 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 Full Body Harness 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 only 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 Full Body Harness models with a fixed sternal attachment for these applications.

12. 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 Full Body Harness 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.

13. 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 Full Body Harness shoulder straps separate.

14. 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.

15. 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 Full Body Harness) to store the unused end of a fall arrest lanyard, as this may cause a tripping hazard, or, in the case multiple leg lanyards, could cause adverse loading to the Full Body Harness and the wearer through the unused portion of the lanyard.

16. 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.

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. 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 heating, alteration and excessive wear.
- Evidence of defects in or damage to strap or ropes including fraying, unsplicing, unlaying, kinking, knot-ting, roping, broken or pulled stitches, excessive elongation, chemical attack, excessive soiling, abra-sion, 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 equip-ment 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 tem-perature, light, UV, excessive moisture, oil, chemicals and their vapors or other degrading elements.



