DBI SALA®

Instructions for the following series products:
Full Body Harnesses

(See back pages for specific model numbers.)

USER INSTRUCTION MANUAL FULL BODY HARNESS

This manual is intended to meet the Manufacturer's Instructions as required by ANSIZ359.1 and should be used as part of an employee training program as required by OSHA

Figure 1 - WorkVest Style Full Body Harness

Figure 2 - Vest Style Full Body Harness

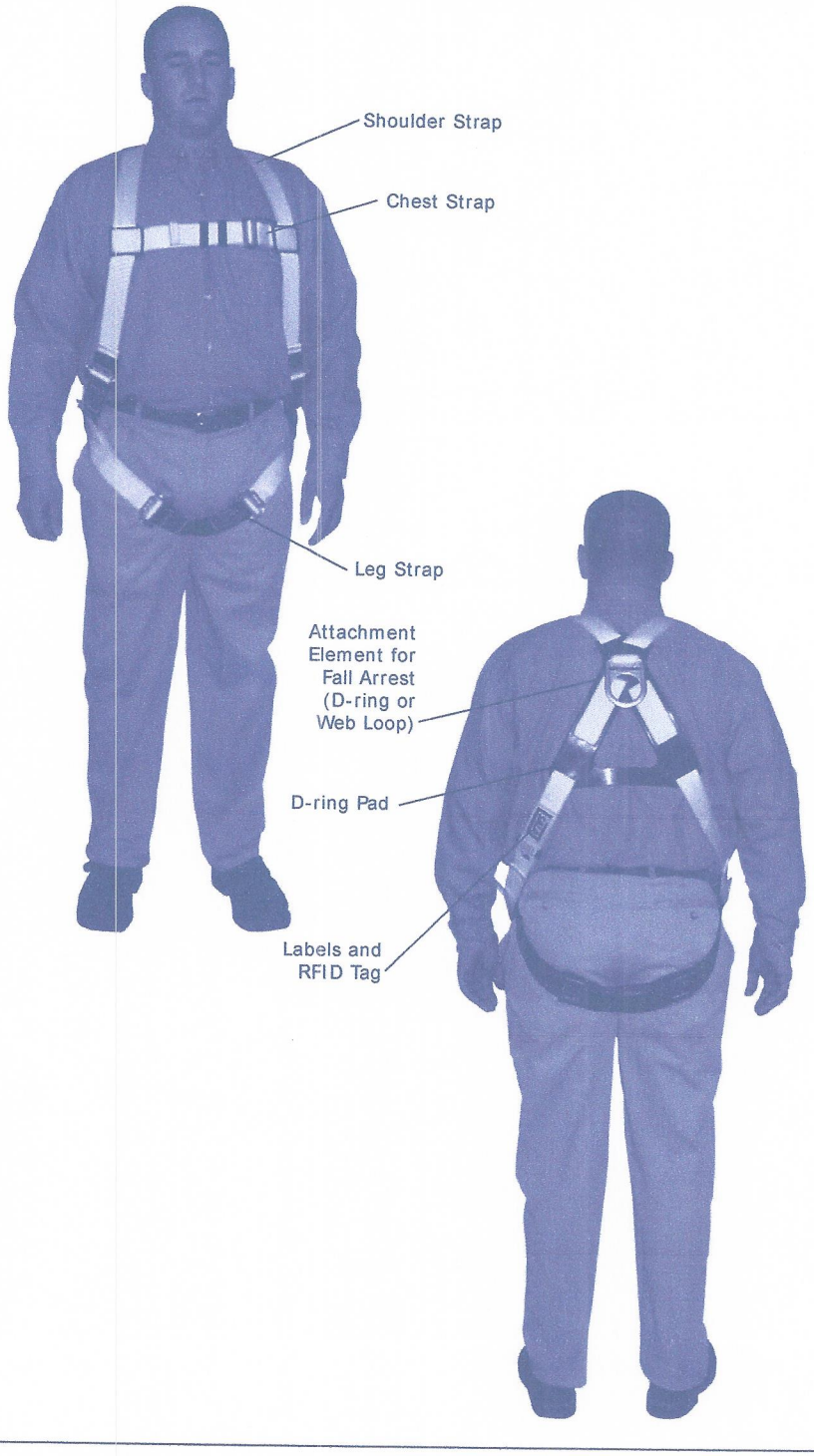
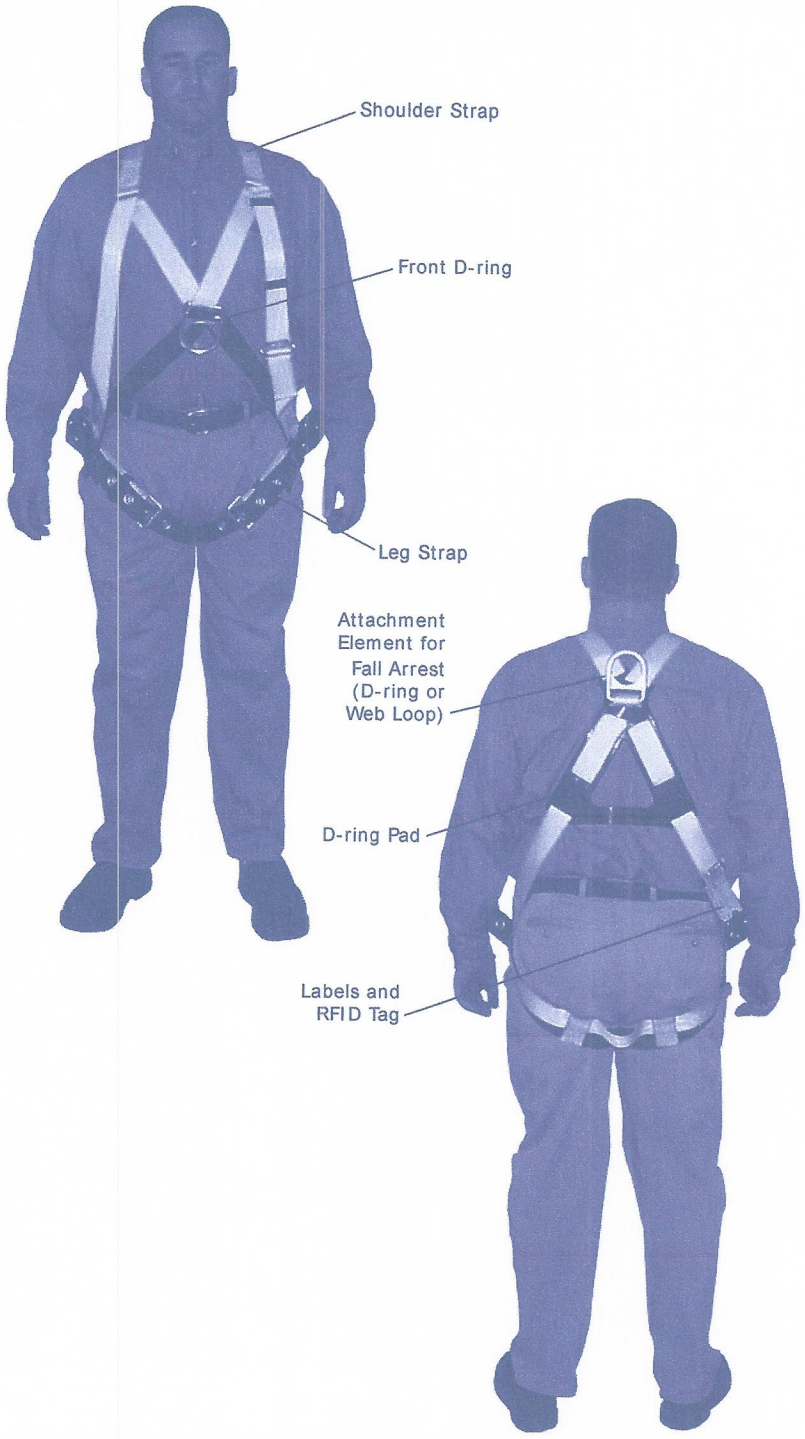


Figure 3 - Cross-over Style Full Body Harness

Figure 4 - Step-in Style Full Body Harness



WARNING: *This product is part of a personal fall arrest, restraint, work positioning, personnel riding, climbing, or rescue system. The user must follow the manufacturer's instructions for each component of the system. These instructions must be provided to the user of this equipment. 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 or misuse of this product or failure to follow instructions may result in serious injury or death.*

IMPORTANT: *If you have questions on the use, care, or suitability of this equipment for your application, contact DBI-SALA.*

IMPORTANT: *Before using this equipment, record the product identification information from the ID label in the inspection and maintenance log in section 9.0 of this manual.*

DESCRIPTIONS

Work Vest Style Full Body Harness: See Figure 1.
Vest Style Full Body Harness: See Figure 2.
Cross-Over Style Full Body Harness: See Figure 3.
Step-In Style Full Body Harness: See Figure 4.

OPTIONS:
DBI-SALA Full Body Harnesses are available with options and accessories. Following is a partial list of commonly used options and accessories (some options may not be available on all harnesses):

- Shoulder D-rings
- Side D-rings
- Hip pad with side D-rings
- Quick Connect buckles
- Tongue buckle body belt
- Loops on harness for body belt
- Kevlar® webbing
- High visibility webbing
- Non-sparking/Nonconductive PVC coated hardware
- Shoulder pads
- Tool belt support straps
- Seat sling
- Lanyard attached directly to D-ring or attachment element
- Snap fastener on shoulder strap for retaining lanyard
- Work Vest
- Tool holders

1.0 APPLICATIONS

1.1 **PURPOSE:** DBI-SALA full body harnesses are to be used as components in personal fall arrest, restraint, work positioning, or rescue systems. See Figures 1, 2, 3, and 4 for harness styles.

Harnesses included in this manual are full body harnesses and meet ANSI Z359.1 and OSHA requirements. See Figure 5 for application illustrations.

- Full body harnesses with Kevlar web should be used when working with tools, materials, or environments of high temperature (foundries, chemical manufacturing, steel fabrication, emergency rescue services, fire services, welders, oil industry, nuclear industry, explosives).
- Harnesses with PVC coated hardware should be used when working in explosive or electrically conductive environments, or where surfaces must be protected from the hardware.
- Harnesses with high visibility webbing should be used when increased visibility of the user is required.

A. **PERSONAL FALL ARREST:** The full body harness is used as a component of a personal fall arrest system. Personal fall arrest systems typically include a full body harness and a connecting subsystem (energy absorbing lanyard). Maximum arresting force must not exceed 1,800 lbs.

B. **RESTRAINT:** The full body harness is used as a component of a restraint system to prevent the user from reaching a fall hazard. Restraint systems typically include a full body harness and a lanyard or restraint line.

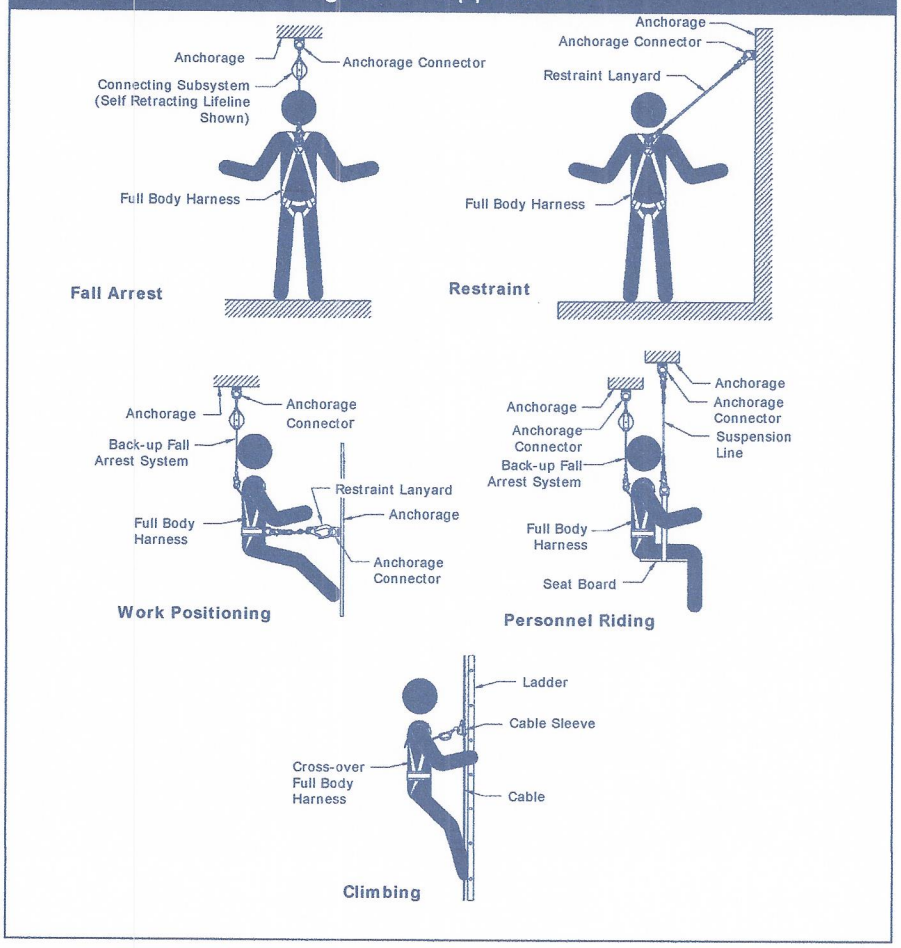
C. **WORK POSITIONING:** The full body harness is used as a component of a work positioning system to support the user at a work position. Work positioning systems typically include a full body harness, positioning lanyard, and a back-up personal fall arrest system.

D. **PERSONNEL RIDING:** The full body harness is used as a component of a personnel riding system to suspend or transport the user vertically. Personnel riding systems typically include a full body harness, boatswains's chair or seat board, and a back-up personal fall arrest system.

E. **CLIMBING:** The full body harness is used as a component of a climbing system to prevent the user from falling when climbing a ladder or other climbing structure. Climbing systems typically include a full body harness, vertical cable or rail attached to the structure, and climbing sleeve.

F. **RESCUE:** The full body harness is used as a component of a rescue system. Rescue systems are configured depending on the type of rescue.

Figure 5 - Applications



1.2 **LIMITATIONS:** Consider the following application limitations before using this equipment:

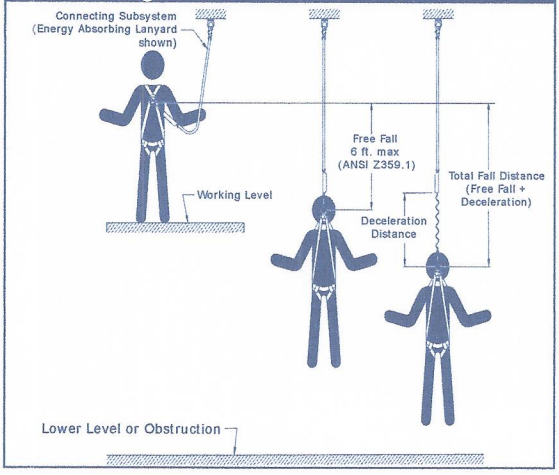
A. **CAPACITY:** These full body harnesses are designed for use by persons with a combined weight (clothing, tools, etc.) of no more than 420 lbs. Make sure all of the components in your system are rated to a capacity appropriate to your application

B. **FREE FALL:** Personal fall arrest systems used with this equipment must be rigged to limit the free fall to 6 feet (ANSI Z359.1). Restraint systems must be rigged so that no vertical free fall is possible. Work positioning systems must be rigged so that free fall is limited to 2 feet or less. Personnel riding systems must be rigged so that no vertical free fall is possible. Climbing systems must be rigged so that free fall is limited to 18 inches or less. Rescue systems must be rigged so that no vertical free fall is possible. See subsystem manufacturer's instructions for more information.

C. **FALL CLEARANCE:** See Figure 6. There must be sufficient clearance below the user to arrest a fall before the user strikes the ground or other obstruction. The clearance required is dependent on the following factors:

- Elevation of anchorage
- Connecting subsystem length
- Deceleration distance
- Free fall distance
- Worker height
- Movement of harness attachment element

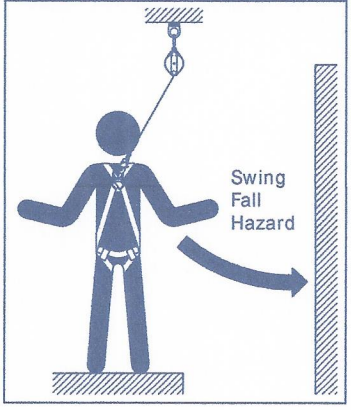
Figure 6 - Fall Clearance



See subsystem manufacturer's instructions for more information.

D. **SWING FALLS:** See Figure 7. Swing falls occur when the anchorage point is not directly above the point where a fall occurs. The force of striking an object in a swing fall may cause serious injury or death. Minimize swing falls by working as close to the anchorage point as possible. Do not permit a swing fall if injury could occur. Swing falls will significantly increase the clearance required when a self-retracting lifeline or other variable length connecting subsystem is used.

Figure 7 - Swing Fall



E. **EXTENDED SUSPENSION:** A full body harness is not intended for use in extended suspension applications. If the user is going to be suspended for an extended length of time it is recommended that some form of seat support be used. DBI-SALA recommends a seat board, suspension workseat, seat sling, or a boatswain chair. Contact DBI-SALA for more information on these items.

F. **ENVIRONMENTAL HAZARDS:** Use of this equipment in areas with environmental hazards may require additional precautions to prevent injury to the user or damage to the equipment.

Hazards may include, but are not limited to; heat, chemicals, corrosive environments, high voltage power lines, gases, moving machinery, and sharp edges.

G. **HARNESSES FOR HIGH TEMPERATURE ENVIRONMENTS:** Harnesses with Kevlar webbing are designed for use in high temperature environments, with limitations: Kevlar webbing begins to char at 800° to 900° Fahrenheit. Kevlar webbing can withstand limited contact exposure to temperatures up to 1,000° F. Polyester webbing loses strength at 300° to 400° F. PVC coating on hardware has a melting point of approximately 350° F.

IMPORTANT: *When working with tools, materials, or in high temperature environments, ensure that associated fall protection equipment can withstand high temperatures, or provide protection for those items.*

IMPORTANT: *Although PVC coated, cadmium, or zinc plated hardware exhibit excellent corrosion resistance in chemical, acidic, alkaline, and atmospheric conditions, frequent inspections may be required. Consult with DBI-SALA if you question the use of this equipment in hazardous environments.*

H. **TRAINING:** This equipment must be installed and used by persons trained in its correct application and use. See section 4.0.

1.3 **APPLICABLE STANDARDS:** Refer to national standards, including ANSI Z359.1 and local, state, and federal requirements for more information on personal fall arrest systems and associated components.

IMPORTANT: *Harnesses with Kevlar webbing do not meet ANSI Z359.1. Kevlar does not have equivalent abrasion resistance of polyamides. Kevlar harnesses meet all other requirements of this standard.*

2.0 SYSTEM REQUIREMENTS

2.1 **COMPATIBILITY OF COMPONENTS:** DBI-SALA equipment is designed for use with DBI-SALA approved components and subsystems only. Substitutions or replacements made with non-approved components or subsystems may jeopardize compatibility of equipment and may effect the safety and reliability of the complete system.

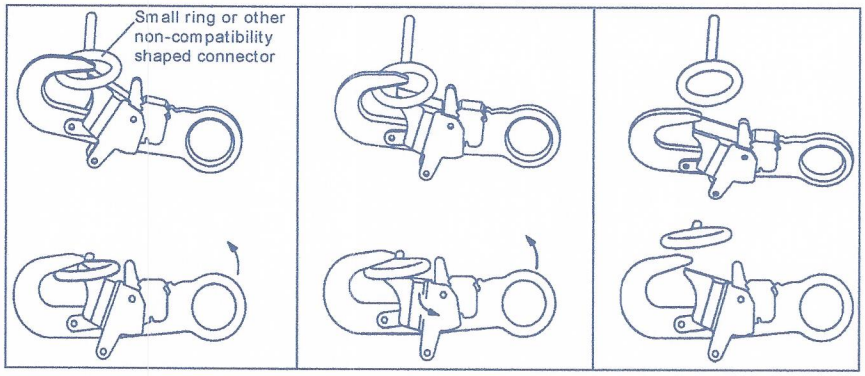
2.2 **COMPATIBILITY OF CONNECTORS:** Connectors are considered to be compatible with connecting elements when they have been designed to work together in such a way that their sizes and

shapes do not cause their gate mechanisms to inadvertently open regardless of how they become oriented. Contact DBI-SALA if you have any questions about compatibility.

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. Do not use equipment that is not compatible. Non-compatible connectors may unintentionally disengage. See Figure 8. Connectors must be compatible in size, shape, and strength. Self-locking snap hooks and carabiners are required by ANSI Z359.1 and OSHA.

Figure 8 - Unintentional Disengagement (Roll-out)

If the connecting element that a snap hook (shown) or carabiner attaches to is undersized or irregular in shape, a situation could occur where the connecting element applies a force to the gate of the snap hook or carabiner. This force may cause the gate (of either a self-locking or a non-locking snap hook) to open, allowing the snap hook or carabiner to disengage from the connecting point.



1. Force is applied to the snap hook.
2. The gate presses against the connecting ring.
3. The gate opens allowing the snap hook to slip off.

2.3 MAKING CONNECTIONS: Use only self-locking snap hooks and carabiners with this equipment. Use only connectors that are suitable to each application. 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.

DBI-SALA connectors (snap hooks and carabiners) are designed to be used only as specified in each product's user's instructions. See Figure 9 for inappropriate connections. DBI-SALA snap hooks and carabiners should not be connected:

A. To a D-ring to which another connector is attached.

B. In a manner that would result in a load on the gate.

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

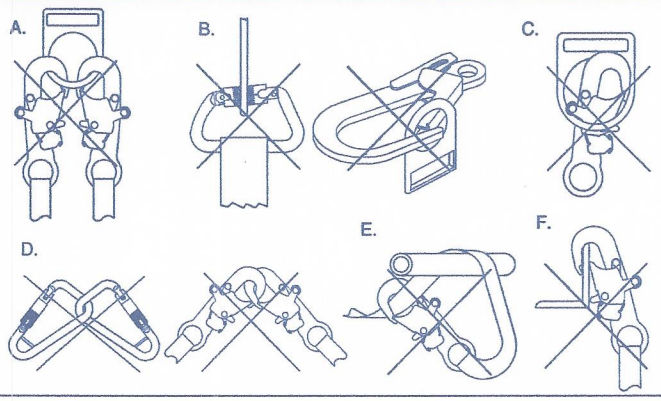
C. In a false engagement, where features that protrude from the snap hook or carabiner catch on the anchor, and without visual confirmation seems to be fully engaged to the anchor point.

D. To each other.

E. Directly to webbing or rope lanyard or tie-back (unless the manufacturer's instructions for both the lanyard and connector specifically allows such a connection).

F. To any object which is shaped or dimensioned such that the snap hook or carabiner will not close and lock, or that roll-out could occur.

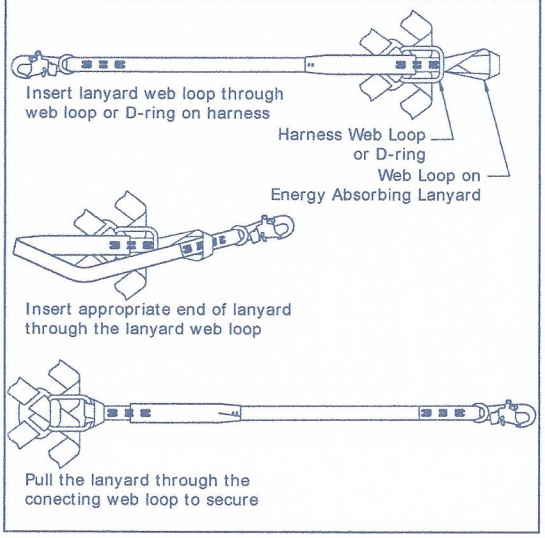
Figure 9 - Inappropriate Connections



2.4 CONNECTING SUBSYSTEMS: Connecting subsystems (self-retracting lifeline, lanyard, rope grab and lifeline, cable sleeve) must be suitable for your application. See section 1.1. See subsystem manufacturer's instructions for more information. Some harness models have web loop connection points. Do not use snap hooks to connect to web loops. Use a self-locking carabiner to connect to a web loop. Ensure the carabiner cannot cross-gate load (load against the gate rather than along the backbone of the carabiner). Some lanyards are designed to choke onto a web loop to provide a compatible connection. See Figure 10. Lanyards may be sewn directly to the web loop forming a permanent connection. Do not make multiple connections onto one web loop, unless choking two lanyards onto a properly sized web loop.

2.5 ANCHORAGE STRENGTH: The anchorage strength required is dependent on the application. Following are anchorage strength requirements for specific applications:

Figure 10 - Web Loop Connection



A. **FALL ARREST:** The structure to which the personal fall arrest system is attached must sustain static loads applied in the directions permitted by the fall arrest system of at least: 3,600 lbs. with certification of a qualified person, or 5,000 lbs. without certification. See ANSI Z359.1 for certification definition. When more than one personal fall arrest system is attached to an anchorage, the strengths stated above must be multiplied by the number of personal fall arrest systems attached to the anchorage.

   From OSHA 1926.500 and 1910.66: Anchorages used for attachment of a personal fall arrest system shall be independent of any anchorage being used to support or suspend platforms, and must support at least 5,000 lbs. per user attached; or be designed, installed, and used as part of a complete personal fall arrest system which maintains a safety factor of at least two, and is supervised by a qualified person.

B. **RESTRAINT:** The structure to which the restraint system is attached must sustain static loads applied in the directions permitted by the restraint system of at least 3,000 lbs. When more than one restraint system is attached to an anchorage, the strengths stated above must be multiplied by the number of restraint systems attached to the anchorage.

C. **WORK POSITIONING:** The structure to which the work positioning system is attached must sustain static loads applied in the directions permitted by the work positioning system of at least 3,000 lbs., or twice the potential impact load, whichever is greater. See OSHA 1926.502. When more than one work positioning system is attached to an anchorage, the strengths stated above must be multiplied by the number of work positioning systems attached to the anchorage.

D. **PERSONNEL RIDING:** The structure to which the personnel riding system is attached must sustain static loads applied in the directions permitted by the personnel riding system of at least 2,500 lbs. When more than one personnel riding system is attached to an anchorage, the strengths stated above must be multiplied by the number of personnel riding systems attached to the anchorage.

E. **RESCUE:** The structure to which the rescue system is attached must sustain static loads applied in the directions permitted by the rescue system of at least 2,500 lbs. When more than one rescue system is attached to an anchorage, the strengths stated above must be multiplied by the number of rescue systems attached to the anchorage.

3.0 DONNING AND USE

WARNING: *Do not alter or intentionally misuse this equipment. Consult DBI-SALA when using this equipment in combination with components or subsystems other than those described in this manual. Some subsystem and component combinations may interfere with the operation of this equipment. Use caution when using this equipment around moving machinery, electrical and chemical hazards, and sharp edges.*

WARNING: *Consult your doctor if there is reason to doubt your fitness to safely absorb the shock from a fall arrest. Age and fitness seriously affect a worker's ability to withstand falls. Pregnant women or minors must not use any DBI-SALA full body harness.*

3.1 **BEFORE EACH USE** of this equipment inspect it according to section 5.0 of this manual.

3.2 **PLAN** your system before use. Consider all factors that will affect your safety during use of this equipment. The following list gives important points to consider when planning your system:

A. **ANCHORAGE:** Select an anchorage that meets the requirements specified in sections 1.2 and 2.5.

B. **SHARP EDGES:** Avoid working where system components may be in contact with, or abrade against, unprotected sharp edges.

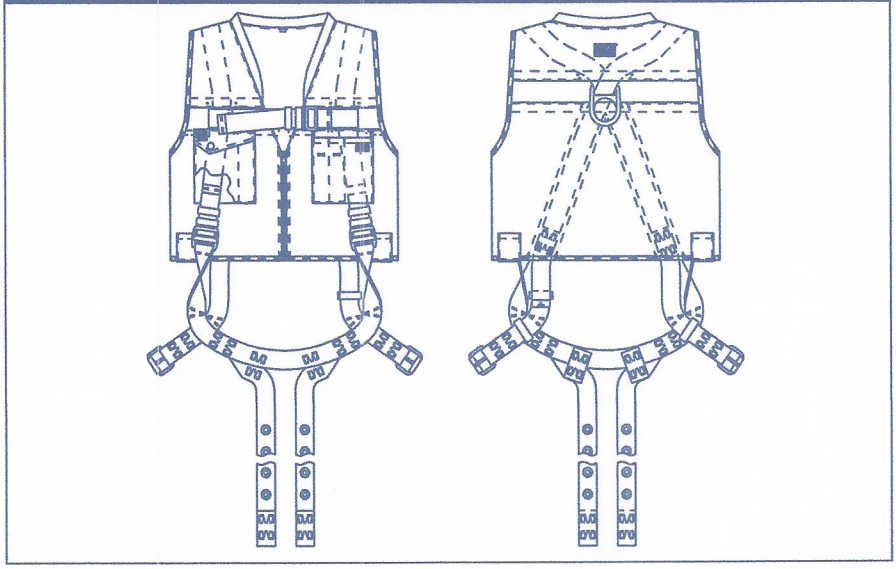
C. **AFTER A FALL:** Components which have been subjected to the forces of arresting a fall must be removed from service and destroyed.

D. **RESCUE:** The employer must have a rescue plan when using this equipment. The employer must have the ability to perform a rescue quickly and safely.

3.3 DONNING AND FITTING THE HARNESS:

A. **WORK VEST STYLE HARNESS:** See Figure 11 for front and back views of the Work Vest style harness. Don the Work Vest style full body harness by following these steps (see Figures 12 and 13).

Figure 11 - Front and Back View of Work Vest Style Harness



Step 1. Lift harness by the back D-ring and untangle straps. Allow leg straps to hang free.

Step 2. Don the Vest Harness as you would a jacket.

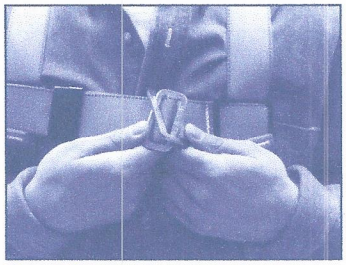
Step 3. Reach between legs and grasp blue leg strap on your left side. Bring strap up between legs and connect to buckle attached to yellow strap (orange on high visibility models, black on flame resistant models) as shown in Figures 12 and 13. Connect right leg strap.

Step 4. Connect chest strap by passing male buckle through female buckle. Pass excess webbing through loop keepers. See Figure 13.

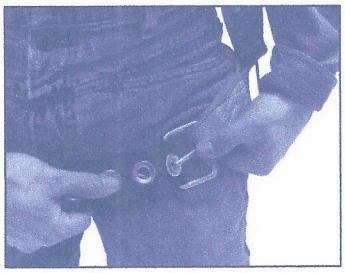
Step 5. Adjust shoulder straps to a snug fit. Left and right shoulder straps should be adjusted to the same length. Readjust leg straps, chest strap, and shoulder straps as necessary to a snug fit.

Figure 12 - Donning WorkVest Style Harness

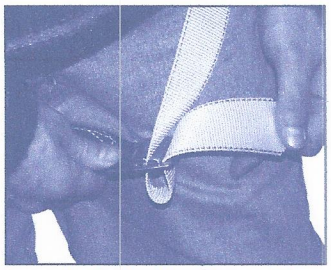
Figure 13 - WorkVest Style Harness Buckle Connections



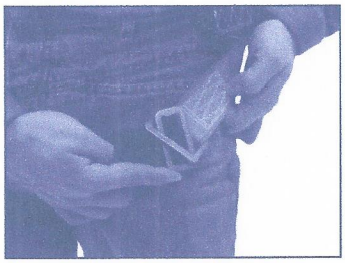
Chest Strap: Pass male buckle through female buckle and pull free end of webbing to tighten.



Tongue Buckle: Pass webbing through buckle and insert tongue through grommet.



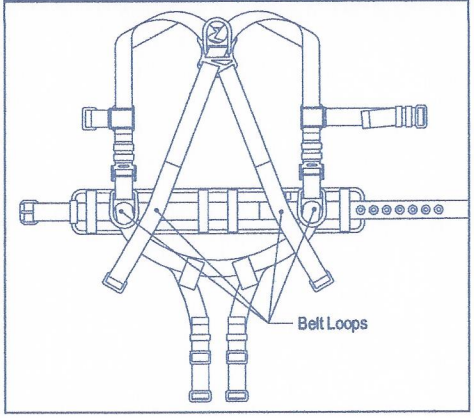
Parachute Buckle: Pass webbing under buckle and over roller and down between roller and frame. Pull web end to tighten. Three inches of web must extend past buckle.



Pass Buckle: Pass male buckle through female buckle and pull free end of webbing to tighten.

B. VEST STYLE HARNESS: If your harness incorporates loops for a removable waist belt, the belt should be installed through the four loops in the harness as shown in Figure 14. The hip pad, if used, is secured to the belt by passing the belt through the hip pad loops. Don the vest style full body harness by following these steps (see Figures 15 and 16):

Figure 14 - Removable Waist Belt & Hip Pad



Step 1. Locate back D-ring held in position by the D-ring pad; lift up harness and hold by this D-ring. Ensure the straps are not twisted.

Step 2. Grasp the shoulder straps and slip harness onto one arm. D-ring will be located on your back side. Ensure straps are not tangled and hang freely. Slip free arm into

Figure 15 - Donning Vest Style Harness

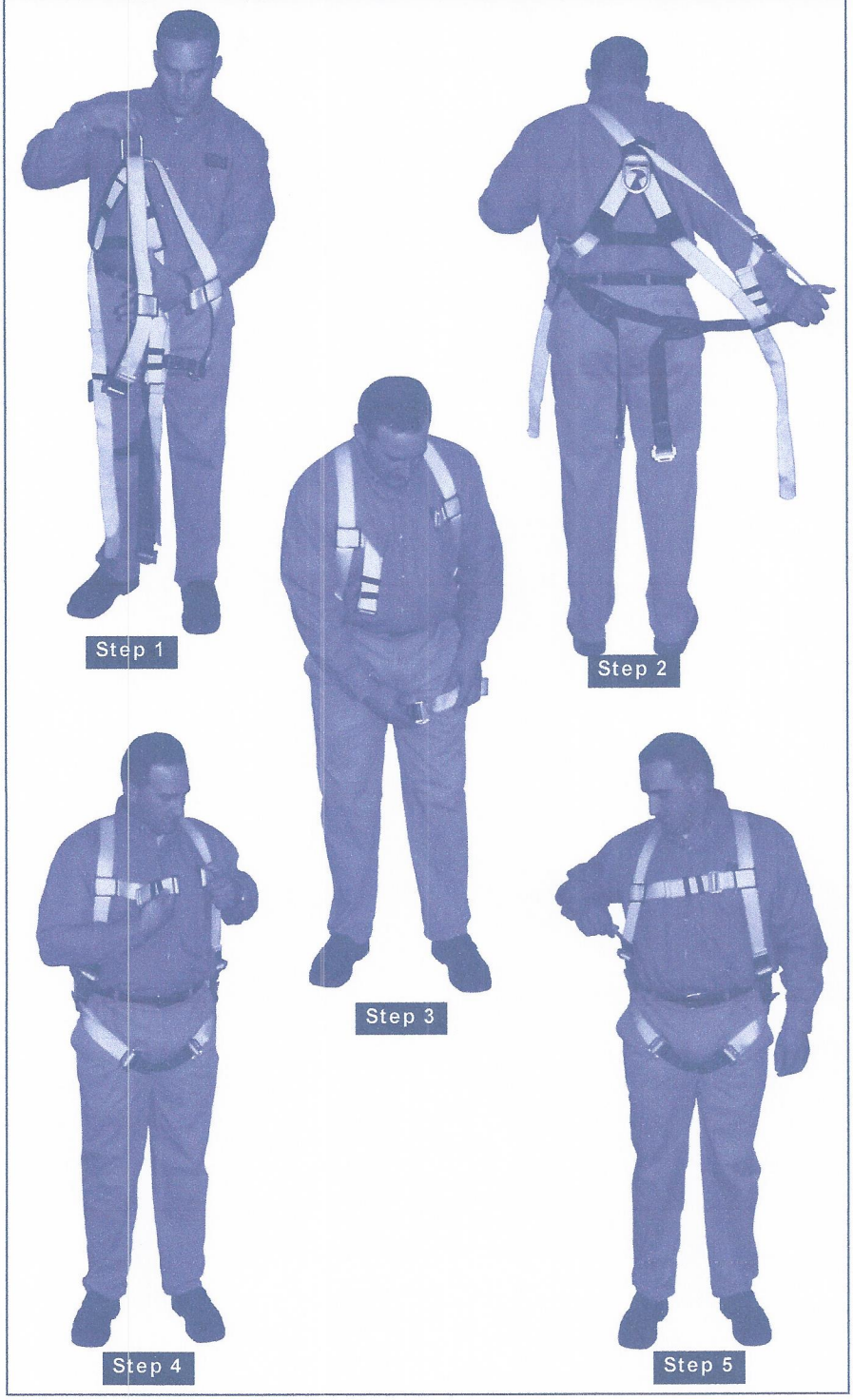
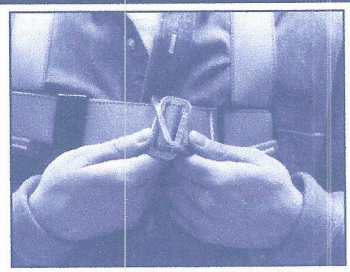
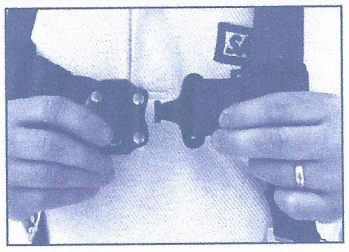


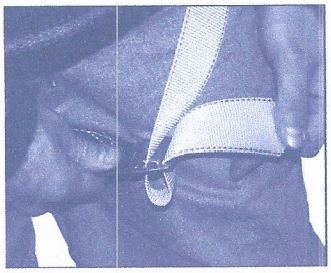
Figure 16 - Vest Style Harness Buckle Connections



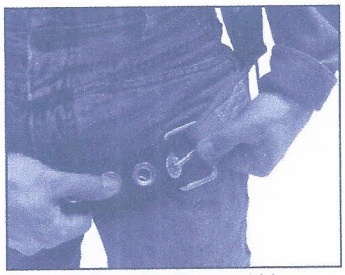
Chest Strap: Pass male buckle through female buckle and pull free end of webbing to tighten.



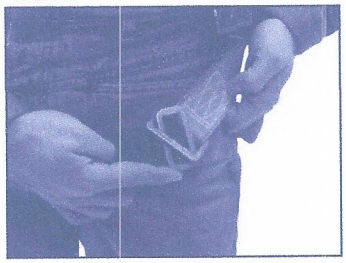
Chest Strap: Attach chest strap by inserting the tab of the buckle into the receptor of the quick connect buckle until a click is heard.



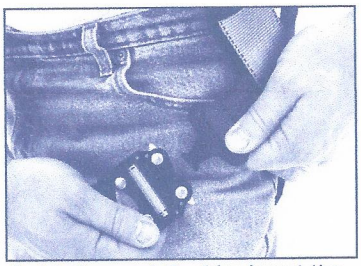
Parachute Buckle: Pass webbing under buckle and over roller and down between roller and frame. Pull web end to tighten. Three inches of web must extend past buckle.



Tongue Buckle: Pass webbing through buckle and insert tongue through grommet.



Pass Buckle: Pass male buckle through female buckle and pull free end of webbing to tighten.



Quick Connect Buckle: Insert the tab of the buckle into the receptor of the quick connect buckle until a click is heard.

harness and position shoulder straps on top of shoulder. Ensure straps are not tangled and hang freely. Chest strap with pass through buckle will be positioned on front side when worn properly.

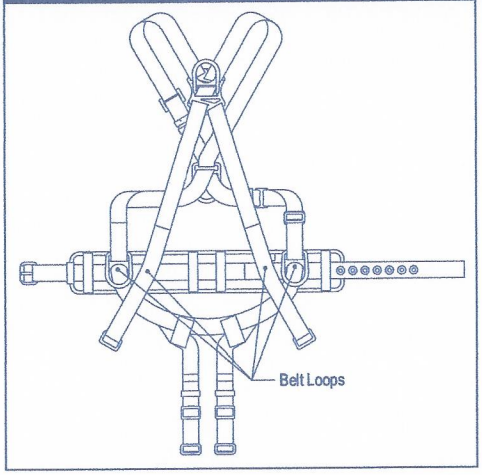
Step 3. Reach between your legs and grasp the leg strap on your left side. Bring the strap up between your legs and connect it by inserting the tab of the buckle into the receptor of quick connect buckle on the left side as shown in Figure 1. You will hear a click when the tab engages properly. Pull the free end of the strap away from the buckle to make a snug fit on each leg strap. To

loosen the leg strap, grasp the yellow plastic portion of the buckle and pull away from your leg to allow the strap to pull through the buckle. A plastic end keeper on the end of the strap will stop it from pulling completely out of the buckle. To release the buckle, press the silver-colored tabs on the buckle towards each other with one hand, while pulling on the tab portion to the buckle with the other hand. Repeat this procedure for the right side.

Step 4. Attach the chest strap by inserting the tab of the buckle into receptor of quick connect buckle. See Figure 1. You will hear a click when the tab engages properly. Chest strap should be six inches down from the top of shoulders. Pass excess strap through the loop keepers. The strap may be tightened to a snug fit by pulling the free strap end to the left (away from the buckle). To loosen the chest strap, grasp the yellow plastic portion of the buckle and pull away from the body to allow the strap to pull through the buckle. A plastic end keeper on the end of the strap will stop it from pulling completely out of the buckle. To release the buckle, press the silver-colored tabs on the buckle towards each other with one hand, while pulling on the tab portion to the buckle with the other hand.

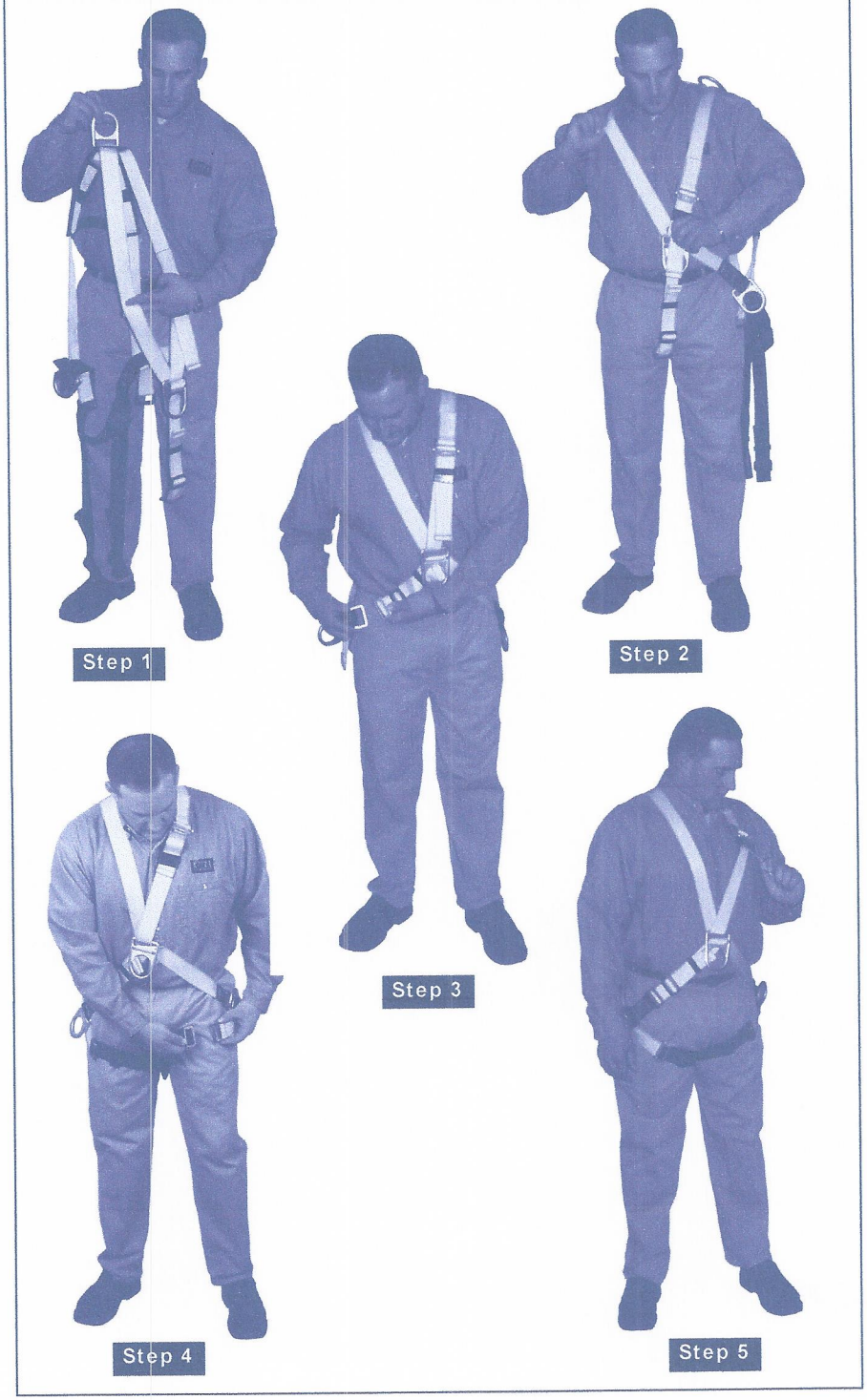
Step 5. Adjust shoulder straps to a snug fit by pulling excess strap through the parachute buckles on each side of the harness. Left and right sides of shoulder straps should be adjusted to the same length and the chest strap should be centered on your lower chest, six inches down from shoulder. The front D-ring on vest style harness is moved up or down by adjusting the shoulder straps and leg straps. Center the back D-ring between shoulder blades. Adjust leg straps to a snug fit. At least three inches of webbing must extend past buckle on leg straps. Adjust the waist belt (if present).

Figure 17 - Removable Waist Belt and Hip Pad



C. **CROSS-OVER STYLE HARNESS:** If your harness incorporates loops for a removable waist belt, the belt should be installed through the four loops in the harness as shown in Figure 17.

Figure 18 - Donning Cross-over Style Harness



The hip pad, if used, is secured to the belt by passing the belt through the hip pad loops. Don the cross-over style full body harness by following these steps (see Figures 18 and 19):

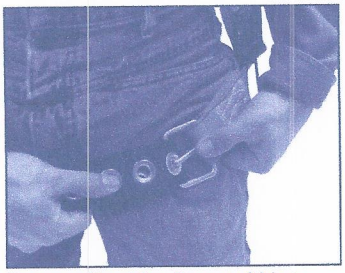
Step 1. Locate back D-ring held in position by the D-ring pad; lift up harness and hold by this D-ring. Ensure the straps are not twisted.

Step 2. Grasp shoulder straps between back and front D-ring and slip harness over your head from the left side. Position shoulder straps on top of shoulder. Ensure straps are not tangled and hang freely. The D-ring will be positioned on your back when worn properly.

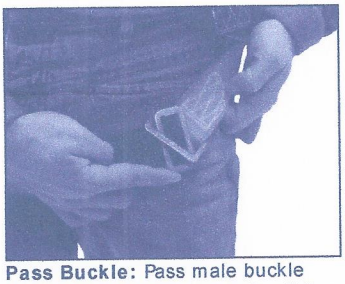
Step 3. Grasp male pass-through buckle located on yellow strap (orange on high visibility models, black on flame resistant models) below front D-ring and connect to female pass-through buckle (attached to blue or strap on right hip). Male end of buckle must pass through female end. Ensure straps are not tangled or crossed.

Step 4. Reach between legs and grasp blue leg strap on your left side. Bring strap up between legs and connect to buckle attached to yellow strap (orange on high visibility

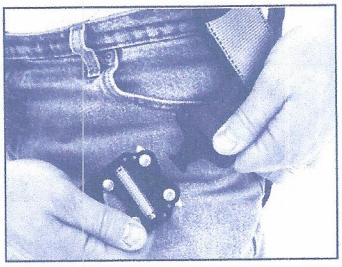
Figure 19 - Cross-over Style Harness Buckle Connections



Tongue Buckle: Pass webbing through buckle and insert tongue through grommet.



Pass Buckle: Pass male buckle through female buckle and pull free end of webbing to tighten.



Quick Connect Buckle: Insert the tab of the buckle into the receptor of the quick connect buckle until a click is heard

Parachute Buckle: Pass webbing under buckle and over roller and down between roller and frame. Pull web end to tighten. Three inches of web must extend past buckle.

models, black on flame resistant models). Connect right leg strap.

Step 5. Adjust shoulder straps to a snug fit. Left and right sides of shoulder straps should be adjusted to the same length and the front D-ring should be centered on your lower chest. The back D-ring should be centered between your shoulder blades. Adjust leg straps to a snug fit. At least three inches of webbing must extend past parachute adjuster buckle when used on leg straps. Adjust the waist belt (if present). Center retrieval D-rings (if present) on top of each shoulder.

D. STEP-IN STYLE HARNESS: Don the step-in style full body harness by following these steps (see Figures 20 and 21):

Step 1. Locate back D-ring held in position by the D-ring pad; lift up harness and hold by this D-ring. Ensure the straps are not twisted.

Step 2. Step into harness by placing right leg over the seat sling and then your left leg.

Step 3. Raise harness up and slip arms between front and back shoulder straps. Slip the back D-ring pad over your head with your head between the front shoulder straps and the adjuster links.

Step 4. Reach between legs and grasp blue leg strap on your left side. Bring strap up between legs and connect to buckle attached to yellow strap (orange on high visibility models, black on flame resistant models). Connect right leg strap.

Step 5. Tighten shoulder straps through adjuster links and front D-ring. Adjustment slack should be given out or taken up through the buckle on the lower left shoulder strap. Left and right shoulder straps should be adjusted to the same length, and the front D-ring should be centered on your lower chest. The back D-ring should be centered between your shoulder blades. Adjust leg straps to a snug fight.

3.4 USE OF FALL ARREST D-RING OR ATTACHMENT ELEMENT: For fall protection applications connect to the D-ring or attachment element on your back, between your shoulder blades. Side D-rings, if present, are for positioning or restraint applications only. Shoulder retrieval D-rings are for rescue or retrieval applications only. Front D-ring is for ladder climbing or positioning. D-rings on seat sling are for suspension or positioning applications only.

Figure 20 - Donning Step-in Style Harness

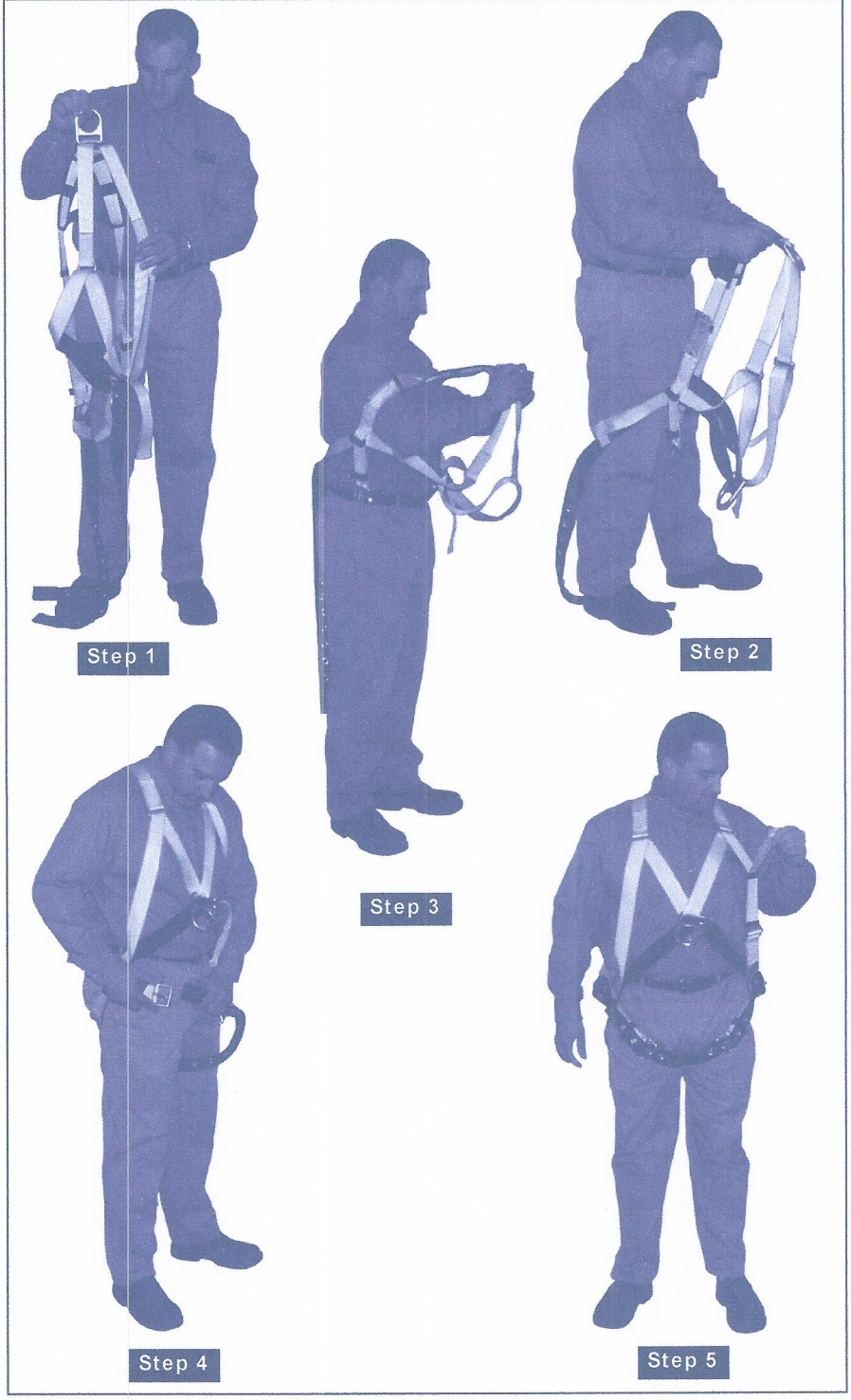
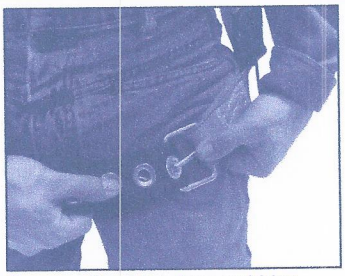
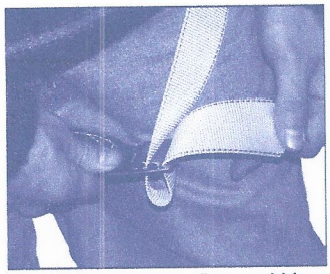


Figure 21 - Step-in Style Harness Buckle Connections



Tongue Buckle: Pass webbing through buckle and insert tongue through grommet.

Pass Buckle: Pass male buckle through female buckle and pull free end of webbing to tighten.



Parachute Buckle: Pass webbing under buckle and over roller and down between roller and frame. Pull web end to tighten. Three inches of web must extend past buckle.

3.5 MAKING CONNECTIONS: When using a hook to connect to an anchorage or when coupling components of the system together, ensure roll-out cannot occur. Roll-out occurs when interference between the hook and mating connector causes the hook gate to unintentionally open and release. Self-locking snap hooks and carabiners should be used to reduce the possibility of roll-out. Do not use hooks or connectors that will not completely close over the attachment object. See subsystem manufacturer's instructions for more information on making connections.

3.6 CONNECTING SYSTEM COMPONENTS: After fitting the full body harness the user may then connect to other system components. Follow the guidelines in section 3.4 on selecting the correct attachment element.

4.0 TRAINING

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

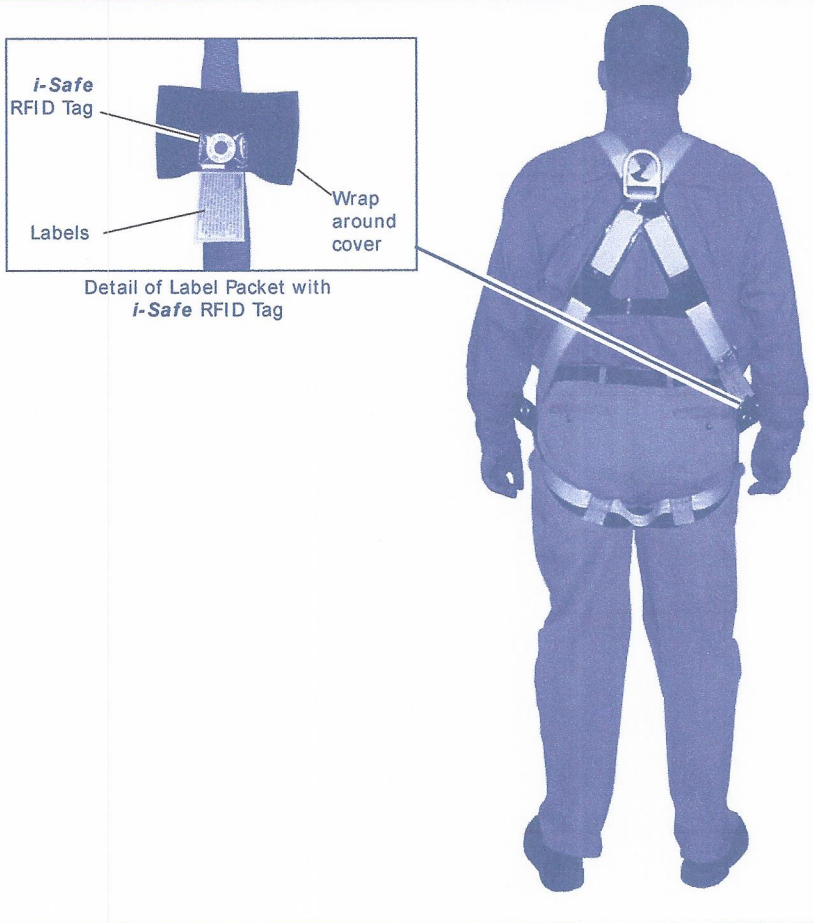
***IMPORTANT:** Training must be conducted without exposing the user to a fall hazard. Training should be repeated on a periodic basis.*

5.0 INSPECTION

5.1 The i-Safe™ RFID tag on this harness can be used in conjunction with the i-Safe handheld reading device and the web based portal to simplify inspection and inventory control and provide records for your fall protection equipment See Figure 22.

5.2 **FREQUENCY:** Before each use inspect the full body harness according to sections 5.3 and 5.4. The harness must be inspected by a competent person, other than the user, at least annually. Record the results of each formal inspection in the inspection and maintenance log in section 9.0, or use the i-Safe™ inspection web portal to maintain your inspection records. If you are a first-time user, contact a Customer Service representative in the US at 800-328-6146 or in Canada at 800-387-7484 or if you have already registered, go to: www.capitalsafety.com/isafe.html. Follow instructions provided with your i-Safe handheld reader or on the web portal to transfer your data to your web log.

Figure 22 - i-Safe™ RFID tag



IMPORTANT: *If the full body harness has been subjected to fall arrest or impact forces it must be immediately removed from service and destroyed.*

IMPORTANT: *Extreme working conditions (harsh environments, prolonged use, etc.) may require increasing the frequency of inspections.*

5.3 INSPECTION STEPS:

Step 1. Inspect harness hardware (buckles, D-rings, back pad, loop keepers); These items must not be damaged, broken, distorted, and must be free of sharp edges, burrs, cracks, worn parts, or corrosion. PVC coated hardware must be free of cuts, rips, tears, holes, etc. in the coating to ensure non-conductivity. Ensure buckles work smoothly.If present, inspect the quick connect buckles by ensureing that the release tabs work freely and that a click is heard when the buckle engages. Inspect parachute buckle spring.

Step 2. Inspect webbing; material must be free of frayed, cut, or broken fibers. Check for tears, abrasions, mold, burns, or discoloration. Inspect stitching; Check for pulled or cut stitches. Broken stitches may be an indication that the harness has been impact loaded and must be removed from service.

Step 3. Inspect labels; All labels should be present and fully legible. See section 8.0.

Step 4. Inspect each system component or subsystem according to manufacturer's instructions.

Step 5. Record the inspection date and results in the inspection and maintenance log in section 9.0, or use the i-Safe™ inspection web portal.

NOTE: *Some harnesses are equiped with a "stand up D-ring" in the dorsal (back) D-ring location. If the spring in the D-ring is damaged or lost and the D-ring no longer stands up, this does not compromise the harness integrity. As long as the D-ring passes inspection criteria in Step 1, it is safe to use.*

5.4 If inspection reveals a defective condition, remove unit from service immediately and destroy.

NOTE: *Only DBI-SALA or parties authorized in writing may make repairs to this equipment.*

5.5 PRODUCT LIFE: The functional life of DBI-SALA harnesses is determined by work conditions and maintenance. As long as the

product passes inspection criteria, it may remain in service.

6.0 MAINTENANCE, SERVICING, STORAGE

6.1 WASHING INSTRUCTIONS:

A. FULL BODY HARNESS: Clean full body harness with water and a mild soap solution. Do not use bleach or bleach solutions. Wipe off hardware with a clean, dry cloth, and hang to air dry. Do not force dry with heat. An excessive buildup of dirt, paint, etc. may prevent the full body harness from working properly, and in severe cases degrade the webbing to a point where it weakens and should be removed from service. More information on cleaning is available from DBI-SALA. If you have questions concerning the condition of your harness, or have any doubt about putting it into service contact DBI-SALA.

B. FIRE RESISTANT PADDING:

- Remove pads from harness for laundering. Place the harness in the supplied laundry bag. The bag is designed to prevent entanglement of harness and to protect the washing machine from damage. Use of the laundry bag to wash the pads is optional.
- Launder flame resistant pads separately from harness or other non-flame resistant garments. Lint from other garments may affect flame resistance.
- Use a bleach-free detergent when washing both the harness and the pads. Do not use soap; soap may leave a residue which could affect flame resistance.
- Do not use chlorine bleach. Bleach may weaken fabric and reduce product life.
- Oily or greasy stains may be pre-treated and washed in hot water 140°F max (60°C max).
- Use delicate, permanent press, or cotton sturdy wash cycle with cold or warm water. Hot water can be used on heavily soiled items as long as it does not exceed 140°F (60°C). Use extra rinse cycle to be sure all residual wash chemicals are removed.
- Air dry or tumble dry using permanent press cycle and low heat. Drying temp should not exceed 200°F (93°C). These fabrics dry quickly, for lowest shrinkage, do not over dry.

6.2 Additional maintenance and servicing procedures must be completed by a factory authorized service center. Authorization must be in writing. Do not attempt to disassemble the unit.

6.3 Store full body harnesses in a cool, dry, clean environment out of direct sunlight. Avoid areas where chemical vapors may exist. Thoroughly inspect the full body harness after extended storage.

7.0 SPECIFICATIONS

7.1 PERFORMANCE

Maximum Free Fall Distance: No greater than 6 feet, per federal law and ANSI Z359.1.
Maximum Arresting Force: 1,800 lbs.
Capacity: 420 lbs.
Approximate Weight:
Harness only: 3 lbs.
Harness with Side D-rings: Add 1/2 lb.
Harness with Back Pad or Belt: Add 1 lb.
Cross-over Style Harness Patent numbers:
United States: 5,203,829
Canada: 2,080,643
All harnesses, excluding Kevlar harnesses, meet ANSI Z359.1 and OSHA requirements.

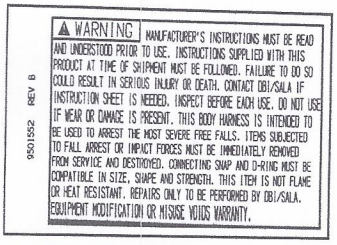
7.1 MATERIALS

Standards: All harnesses marked with ASTM F887-2004 meet all testing requirements of the standard.
Webbing Materials: 7000 lbs. Tensile strength Nylon
7000 lbs. Tensile strength Nomex* covered Kevlar*
Pad and Label Cover Materials:
- All outer fabric is Nomex and Kevlar blend fabric
- Fire resistant hook and loop fasteners

Optional Accessories:
- Hip Pad with side D-rings
- Nomex covered Kevlar webbing
- Non-sparking/ Non-conductive PVC coated hardware
- Arc-rated hip, leg, and back pads
- Polyurethane coated, arc-rated dorsal web loop

8.0 LABELING

8.1 The following labels must be present and completely legible:



Warning Label
Used on Nylon ASTM F887-2004
Compliant Harnesses