

**FrenchCreek**  
FALL SAFETYMODEL: 4151  
QTY: 1EA  
SIZE: UNIV.**158552**100 North 13th St.  
Franklin, PA 16323**Owned and Operated Exclusively in the U.S.A.**  
**Instruction Manual For All FrenchCreek Production Models of  
Harnesses, Lanyards, Lifelines, and Shock-absorbers**

**Warning:** Read, understand, and follow all instructions. Failure to do so may result in serious injury or death. Do not use unless properly trained. It is the employer's responsibility to ensure that all users are properly trained in the proper use, inspection, and maintenance of fall protection equipment. **IMPORTANT:** If you have any questions on the use, care or sustainability of this equipment for your application, contact FrenchCreek. FrenchCreek equipment is designed for use with FrenchCreek approved components and subsystems. Substitutions or replacements made with non-approved components or subsystems may jeopardize compatibility of the unit and may affect the safety and reliability of the complete system.

**1.0 Applications**

**1.1 Purpose:** Personal protective equipment generally falls within six functional categories as described below:

**A. Fall Arrest:** Designed to arrest a fall once it has occurred, maximum arresting force must not exceed 1800 lbs. It typically includes (but is not limited to) the following:

1. *Personal protective equipment:* A full body harness.
2. *Connecting device:* shock absorbing lanyard, lifeline, etc.
3. *Anchorage:* I-beam with tie-off strap or compatible object capable of supporting 5000 lbs. or provide at least a 2:1 safety factor under the supervision of a qualified person.

**B. Positioning:** Designed to hold a worker in place to allow for hands free work. It typically includes (but is not limited to) the following:

1. *Personal protective equipment:* A full body harness.
2. *Connecting device:* positioning strap, rebar assembly, etc.
3. *Anchorage:* Any compatible structural member capable of supporting twice the potential impact load or 3000 lbs., whichever is greater.

**Warning:** A positioning system must be used in conjunction with a fall arrest system if the user is exposed to a fall hazard.

**C. Suspension:** Designed to support a user being raised or lowered. It typically consists of the following:

1. *Suspension device:* A suspended scaffold, bos'n chair or saddle harness designed for lifting or lowering a worker.
2. *Personal protective equipment:* A full body harness.
3. *Connecting device (for suspension):* A work line specifically designed for use with the suspension system.
4. *Anchorage (for suspension):* I-beam with tie-off strap or other compatible object capable of supporting the intended loads.

**Warning:** A suspension system must be used in conjunction with a fall arrest system if the user is exposed to a fall hazard.

- D. **Restraint:** Designed to prevent the user from reaching a fall hazard. It typically includes (but is not limited to) the following:
1. *Personal protective equipment:* A full body harness.
  2. *Connecting device:* A lanyard
  3. *Anchorage:* I-beam with tie-off strap or other compatible object capable of supporting the intended loads.

- E. **Ladder Climbing:** Designed to follow user up a ladder system, providing them with continuous fall protection. It typically includes (but is not limited to) the following:
1. *Personal protective equipment:* A full body harness.
  2. *Connecting device:* Rope Grab
  3. *Anchorage:* Vertical Lifeline and Ladder

- F. **Rescue:** Designed to recover a worker from a confined location or after exposed to a fall. Rescue systems may vary depending on the type of rescue being performed. It may include (but is not limited to) the following:
1. *Personal protective equipment:* A full body harness.
  2. *Connecting device:* Winch or retractable lifeline.
  3. *Anchorage:* A tripod or other object capable of supporting the intended loads
- Warning: The anchorage connector shall be attached to no more than one rescue system unless certified for such purpose.

## 1.2 Standards

Refer to individual product labels for specific standards.

## 1.3 Limitations

Refer to individual product labels for specific standards, capacity, and maximum fall distances.

- A. **Capacity:** FrenchCreek Products are designed for use by persons with a total weight of 130 lbs. – 310 lbs, which is the maximum capacity allowed by ANSI/ASSE standards. FrenchCreek products are tested to a maximum capacity of 400 lbs. to meet OSHA requirements. (This includes worker, clothing, tools, etc.)

**Note:** It is the responsibility of the user and the user's employer to determine if they elect to comply with the ANSI standards which limit capacity range to 130-310 lbs.

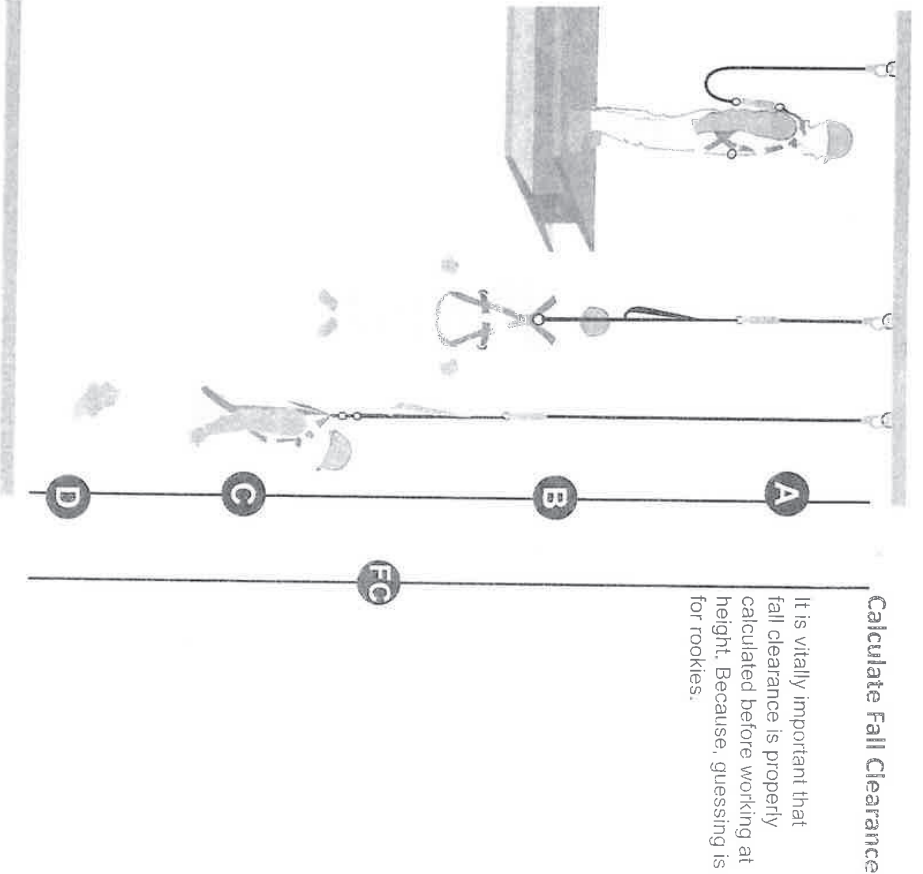
3. **Free Fall:** Personal fall arrest systems used with this equipment must limit free fall distance to 6 feet for single tear-away lanyards or 12 feet for dual tear-away lanyards (ANSI Z359.1/ Z359.13)
- *Restraint systems must be rigged so that no vertical free fall is possible.*
  - *Work positioning systems must be rigged so that free fall is limited to two feet or less.*
  - *Personnel riding systems must be rigged so that no vertical free fall is possible.*
  - *Rescue systems must be rigged so that no vertical free fall is possible.*

3. **Fall Clearance:** (See Figure 1.) Allow for sufficient clearance below the user to avoid contact with a lower level, ground or other obstruction. Consider the following when calculating fall clearances.

- Anchorage elevation
- Length of lanyard or connecting device
- Deceleration distance
- Height of worker
- Harness stretch
- Free fall distance

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Figure 1: Fall Clearance



## CALCULATION

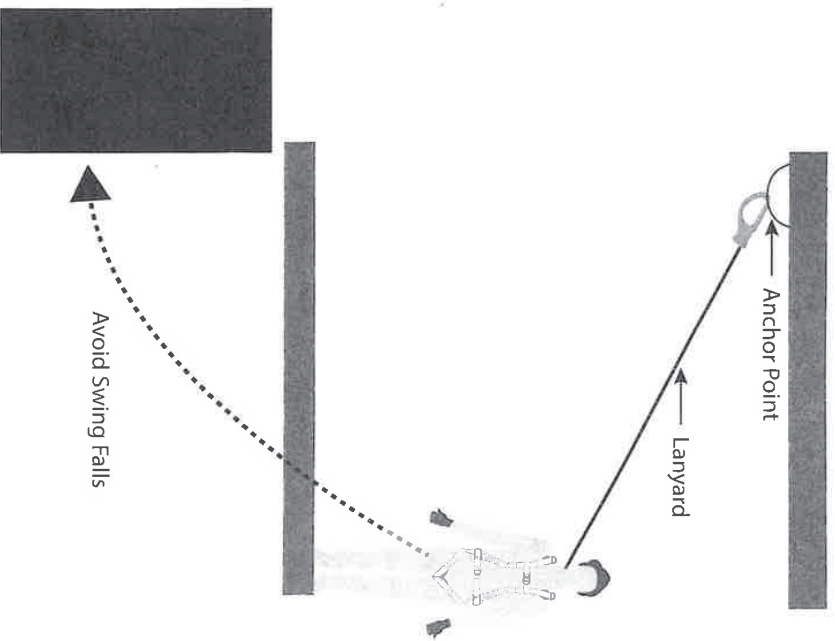
When tying off overhead with a shock absorbing lanyard, the required fall clearance distance (FC) is = A + B + C + D

- A** Lanyard length (Example=6 feet)
- B** Maximum deceleration distance of 3.5 feet (OSHA) for a standard 6 foot shock absorbing lanyard
- C** Height of the suspended worker (Typically = 6 feet factoring in D-ring slide and harness stretch)
- D** Safety factor (3 feet is the industry standard)
- FC** To be safe the distance between your anchor point and the nearest obstruction must be greater than FC

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**D. Swing Falls:** (See Figure 2.) The force of striking an object in a swing fall may cause injury or death. Swing falls occur when the anchor point is not directly over the head of the worker. Minimize swing falls by working below or in front of the anchor point. A swing fall will significantly increase all clearances required when using a self-retracting lifeline or other variable length connecting subsystem. If you feel that a swing fall situation exists in your application, please contact FrenchCreek Production before proceeding. There may be other solutions to rectify the situation.

**Figure 2: Swing Falls**



**E. Physical/Environmental Hazards:** Additional precautions may be necessary to reduce injury to the user or damage to the system in locations that present physical or environmental hazards. Hazards may include, but are not limited to: heat, chemicals, corrosive environments, electrical hazards, gases, machinery, and sharp edges. Please contact FrenchCreek, if you have questions about using this product where hazards exist.

## 2.0 System Requirements

### 2.1 Fall Protection Groups:

Personal fall arrest systems are comprised of three key components. These components must be used together to provide protection from a fall, and are often referred to as the ABC's of fall protection.

**A. Anchorage/Anchor Connector:** Anchorages are a secure point of attachment to a structure. Anchorages and anchor connectors can vary widely by industry, type of work performed, installation, environment, and surrounding structures.

**B. Body Support:** Full body harnesses distribute fall arrest forces over the upper thighs, chest, and shoulders. A full body harness will have a back dorsal connection point for the worker to be properly attached.

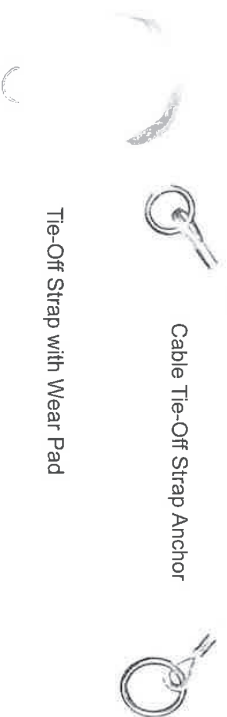
**C. Connecting Device:** Connecting devices join the body support to the anchorage/anchor connector. Connecting devices can be shock absorbing lanyards or retractable lifelines.

### 2.2 Warnings and Limitations

#### A. Anchorages/Anchorage Connectors: (See Figure 3.)

- Anchorages must be capable of supporting 5,000 lbs. per worker, or be designed, installed, and used as part of a system which maintains a safety factor of at least 2:1 under supervision of a qualified person.
- Anchorage requirements based on ANSI are as follows:
  - For fall arrest systems, anchorages must withstand a static load of 5,000 lbs. for non-certified anchorages or two times the maximum arresting force for certified anchorages.
  - For positioning systems, anchorages must withstand a static load of 3,000 lbs for non-certified anchorages or two times the foreseeable force for certified anchorages.
  - For travel restraint, anchorages must withstand a static load of 1,000 lbs. for non-certified anchorages or two times the foreseeable force for certified anchorages.
- When more than one personal fall arrest system is attached to an anchorage, the above anchor strengths must be multiplied by the number of fall arrest systems attached to the anchorage.
- Anchorage connectors must be capable of withstanding (without breaking) a 5,000 lb. load in major axis between its two bearing points.
- Always work directly under the anchor point to avoid swing fall hazards.
- Make sure the anchor point is at a height that limits the free fall distance to 6 feet or less and ensures that no lower level is struck.
- The anchor point must be compatible with the connecting device (snap hook or carabiner) and must not be capable of causing a load to be applied to the gates.
- Never use an anchor point that will not allow the snap hook or carabiner to close.
- Anchorage connectors are designed to be used in temperatures ranging from -40°F to +130°F

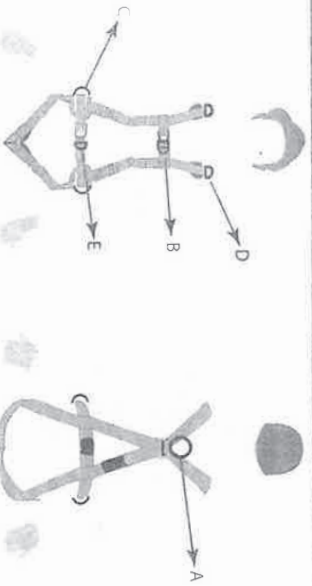
**Figure 3**



#### B. Body Wear: (See Figure 4.)

- Fall arrest connecting devices must be attached to the back D-ring of a full body harness.
- Side, front, and chest D-rings are for positioning purposes only (OSHA) - ANSI; chest or front waist for fall arrest is two feet or less.
- Shoulder D-rings are for retrieval only.
- Never attach non-locking snaps hooks to a D-ring.
- Read, understand, and follow all instructions supplied with equipment to be used with this product.
- Ensure all buckles are properly secured and all straps are connected and adjusted to provide a snug fit.
- Only use a full body harness for fall arrest. Never use a body belt or chest harness for fall arrest.
- Fall Arrest: Impact Indicators - Fold(s) sewn into the load bearing strap(s) adjacent to the attachment element (Dorsal D-ring) secured with a specific stitch pattern. If subjected to fall arrest or equivalent forces, the stitching in one or both indicators will rip and the webbing will unfold. If the indicator has been activated, the harness must be removed from service. Indicator(s) should be inspected before each use. (Figure 4.1)

Figure 4



- A - Back D-ring is for fall arrest and rescue
- B - Front D-ring (if present) is for positioning only (OSHA) - ANSI; two feet or less
- C - Hip positioning D-rings (if present)
- D - Shoulder D-rings (if present) are for rescue only. Do not use for other purposes. Use self-locking snaps only.
- E - Front center waist belt D-ring (if present) is for vertical climbing systems or ladder climbing.

Figure 4.1

#### C. Connecting Devices:

##### 1. Single Tear-Away Lanyards

- FrenchCreek single tear-away shock absorbing lanyards limit the average arresting forces to an average of 900 lbs.
- The off in a manner that will limit the free fall to the shortest possible distance (6 feet max.) and ensure that a lower level will not be struck, should a fall occur. Shock-absorbers can elongate up to 3 1/2 feet. This additional elongation must be considered when choosing a tie-off point.
  - Do not use lanyard or lifelines with non-locking snap hooks or connectors.
  - Always visually check to ensure the snap hooks freely engage the D-ring/anchorage point and that its gates are completely closed and locked, and are never load bearing.
  - Do not attach multiple lanyards or lifelines together, or tie them back onto themselves unless they are specifically designed for such a connection.
  - Do not allow synthetic materials to come in contact with high temperature surfaces, welding, heat sources, electrical hazards, chemicals, or moving machinery.
  - Do not tie the knots in lanyards or lifelines, or wrap them around sharp edges, rough edges, material handling, or small diameter structural members. Use a cross arm strap or other compatible anchorage connector.
  - Never use a steel cable lanyard or lifeline for fall arrest unless used in conjunction with a shock absorber.
  - Never tie the off to an object that is not compatible. Make sure that snap hook keepers are never load bearing.
  - Never allow a lanyard of lifeline to pass under or around the user's arms, legs, torso, or head.
  - Personal Energy Absorbers and Energy Absorbing Lanyards are designed to be used in temperatures ranging from -40°F to +130°F (-40°C to +54°C).

##### 2. Dual Tear-Away Lanyards

- FrenchCreek dual tear-away shock absorbing lanyards limit the average arresting forces to an average of 1350 lbs.
- Tie off in a manner that will limit the free fall to the shortest possible distance (12 feet max.) and ensure that a lower level will not be struck, should a fall occur. Shock-absorbers can elongate up to 5 feet. This additional elongation must be considered when choosing a tie-off point.
  - Do not use lanyard or lifelines with non-locking snap hooks or connectors.
  - Always visually check to ensure the snap hooks freely engage the D-ring/anchorage point and that its gates are completely closed and locked, and are never load bearing.
  - Do not attach multiple lanyards or lifelines together, or tie them back onto themselves unless they are specifically designed for such a connection.
  - Do not allow synthetic materials to come in contact with high temperature surfaces, welding, heat sources, electrical hazards, chemicals, or moving machinery.
  - Do not tie the knots in lanyards or lifelines, or wrap them around sharp edges, rough edges, material handling, or small diameter structural members. Use a cross arm strap or other compatible anchorage connector.
  - Never use a steel cable lanyard or lifeline for fall arrest unless used in conjunction with a shock absorber.
  - Never tie the off to an object that is not compatible. Make sure that snap hook keepers are never load bearing.
  - Never allow a lanyard of lifeline to pass under or around the user's arms, legs, torso, or head.
  - Personal Energy Absorbers and Energy Absorbing Lanyards are designed to be used in temperatures ranging from -40°F to +130°F (-40°C to +54°C).

#### 2.3 Compatibility of Components

FrenchCreek equipment is designed for use with FrenchCreek approved components and subsystems. Substitutions or replacements made with non-approved components or subsystems may jeopardize compatibility of the equipment and may affect the safety and reliability of the complete system.

#### 2.4 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 the gate mechanisms to inadvertently open regardless of how they become oriented. Contact FrenchCreek if you have any questions about compatibility.

Connectors (snaphooks, carabiners, and D-rings) must be capable of supporting at least 5,000 lbs. (22.2kN). Connectors must be compatible with the anchorage and other system components. The use of non-compatible connectors is prohibited, as they may unintentionally disengage. Self-locking snap hooks and carabiners are required by ANSI Z359.1 Z359.12 and OSHA

### 3.0 Installation and Use

#### 3.1 Before Use:

##### A. General Requirements:

- Users shall be provided with all instructions and warnings. These warnings and instructions must be read and understood prior to using the equipment.
- This product is designed for personal fall protection. Never use fall protection equipment for purposes other than what it was designed and intended.
- This equipment must only be used by trained personnel.
- Users must be physically and mentally fit, in good health, and must not have a medical history or conditions that could be aggravated by a fall. Pregnant women and minors must not use this product.
- Users must reference ANSI Z359 and all applicable regulatory standards pertaining to occupational safety.
- All equipment must be visually inspected prior to each use. A more thorough inspection procedure is recommended by a competent individual on a regular basis (at intervals of no more than a year). Refer to the inspection criteria for more details.
- A competent person must ensure system compatibility to minimize the potential for accidental disengagement.
- Equipment must not be altered in any way. Repairs or modifications must be performed only by the equipment manufacturer or persons authorized in writing by the manufacturer.
- Never remove or alter product labels, which include important warnings and information for the user.
- Any products exhibiting deformities, unusual wear, deterioration, or not passing inspection must be immediately removed from service and discarded.
- Any products subjected to fall arresting forces must be removed from service.
- The authorized person/user shall have a rescue plan and the means at hand to implement it when using this equipment.
- Fall arrest systems must be rigged to limit the free fall distance to 6 feet (1/2 feet or less for dual leg-aways) or less and ensure that no lower level is struck.
- Fall arrest systems, when stopping a fall, must limit the maximum arresting force to 1800 lbs. Forces experienced during a fall as well as prolonged suspension may cause bodily injury. In order to minimize the risk of injury, the user shall have a rescue plan and the means at hand to implement it when using this equipment.
- Always check for obstructions below the work area to make sure the potential fall path is clear.
- Remember that shock-absorbers can elongate up to 3 1/2 feet.
- Environmental hazards must be considered when selecting fall protection equipment. Equipment must not be exposed to chemicals which may have a damaging effect. Consult the manufacturer in case of doubt. All synthetic materials must be protected from sleg, hot sparks, open flames, or other heat sources.
- This product should not be used around moving machinery, electrical hazards, sharp edges, or abrasive surfaces.

#### 3.2 Making Connections:

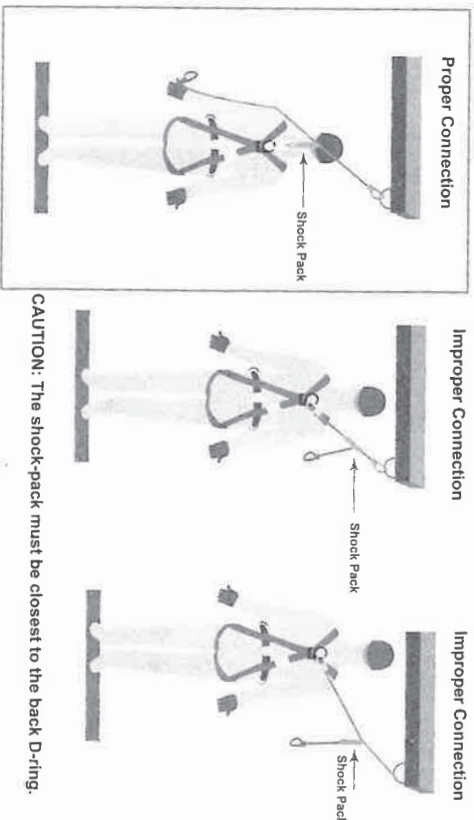
##### A. Single Leg Lanyards:

1. Connect the lanyard snap hook to the back D-ring on the full body harness. The energy absorbing portion of the lanyard should be closest to the body. (Do not connect the energy absorber to the anchorage).
  2. Connect the other end of the lanyard to an approved anchorage or anchorage connector.
- Make sure the connection is compatible with regards to size, shape, and strength. Refer to the instructions supplied with the anchorage connector for proper installation and use.

##### B. Dual Leg Lanyards: (See Figure 5.)

1. Connect the lanyard snaphook to the back D-ring on the full body harness. The energy absorbing portion should be closest to the body. (Do not connect the energy absorber to the anchorage).
2. Connect one of the free legs to the anchorage or anchorage connector. To retain 100% tie off, make sure one leg of the lanyard is connected at all times to an anchorage or anchorage connection that is compatible with regards to size, shape, and strength. Refer to the instructions supplied with the anchorage connector for proper installation and use.
3. Connect the unused leg of the lanyard to the lanyard parking attachment only. Do not connect the spare leg to permanently fixed parts of the harness. (Ex: Chest strap, side D-rings, or front D-rings). It is acceptable to connect both lanyard legs to separate anchorage points providing the distance between the two points is not greater than the lanyard length. (Refer to product label for length of lanyard).
4. Never rig a dual leg lanyard to create more than a six foot free fall.

Figure 5: Proper and Improper Lanyard Connections



##### C. Web Choke Lanyards (See Figure 6.)

1. Insert the web choke loop through the back D-ring on the harness.
2. Insert the opposite end of the lanyard through the web choke loop.
3. Pull the lanyard through the connecting web choke loop to secure.

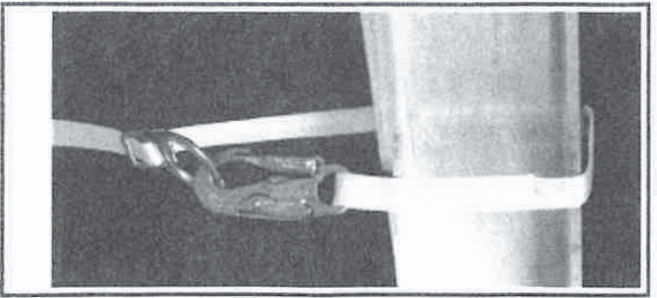
Figure 6: Web Choke Lanyards



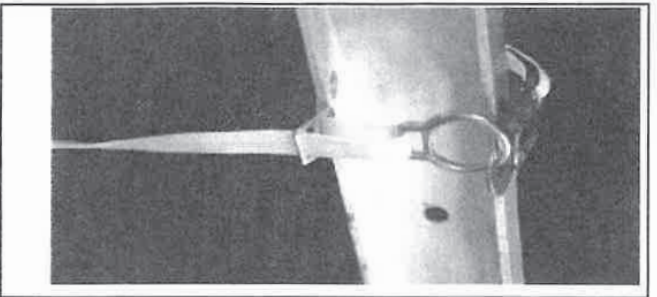
##### D. Tie-Back Lanyard: (See Figure 7.)

1. Place the tie-back lanyard over the anchor. (The lanyard should not be twisted.)
2. Adjust the D-ring so it hangs below the anchor.
3. Attach the end hook of the lanyard to the floating D-ring.

Figure 7: Tie-Back Lanyard



PROPER CONNECTION



IMPROPER CONNECTION

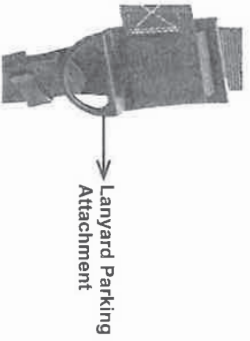
There should NOT be any load on the gate.

**E. Lanyard Parking Attachment: (See figure 8.)**

Your FrenchCreek harness may be equipped with a lanyard parking attachment(s) to help reduce entanglement and trip hazards.

1. After making approved connection to harness D-ring, connect the unused lanyard leg to the ring on the parking attachment.
2. The lanyard parking attachment is not to be used for fall arrest, restraint, or work positioning.
3. Do not attach multiple connectors.

Figure 8: Lanyard Parking Attachment



**F. Vertical Lifeline Connections:**

1. Connect the lifeline snap hook to an approved, compatible anchorage or anchorage connector.
2. The other end of the lifeline should be weighted or tied off at the bottom to assist in the positioning of the fall arrester.
3. Refer to instructions supplied with your fall arrester to assure proper installation.

**G. Snap hooks and Carabiners: (See figure 9.)**

1. Do not connect to a D-ring where another connector is attached.
2. Do not connect in a manner that will result in an improper load of the gate.
3. Do not connect to each other.
4. Do not connect 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.
5. Do not connect directly to a web, rope lanyard, or the back lanyard (unless manufacturers instructions for both lanyard and connector specifically allow the connection).
6. Do not connect to any connection which is misshaped, will not close or lock, or that roll-out could occur.

**H. Tie Off Straps (See figure 9.1.)**

1. With the tie off strap positioned on the anchorage, pass the small D-Ring through the large D-Ring.
2. Pull the small D-Ring down to take up slack that was made by moving the large D-Ring up.
3. Multiple passes of the tie off strap around the anchorage may be made to shorten the length.
4. If equipped with web loop, pass the D-Ring under the anchorage and through the web loop. Pull the D-Ring down to take up slack.

Figure 9: Inappropriate Connections

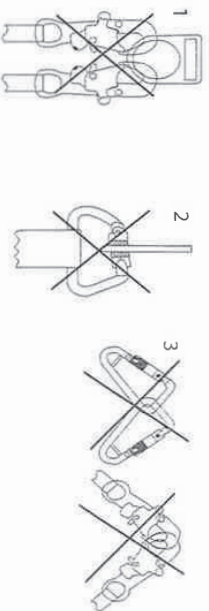
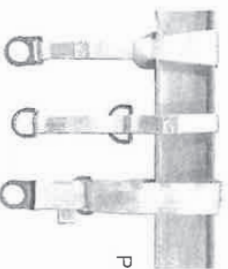


Figure 9.1



Properly installed Tie-Off Strap Anchors

### 3.3 Donning the Harness:

Harnesses are designed to fit a wide range of body shapes and sizes. It is recommended that all adjusting straps be extended to their maximum length before donning the harness.

#### A. Vest Style: (See figure 10, see figure 10-1 for buckle connections.)

1. Grasp the harness by the back D-ring and shake it to allow the straps to fall into position.
2. Unbuckle the chest strap, leg straps, and waist belt. (If so equipped)
3. Slip the harness on much the same way you would a coat with the fall arrest D-ring positioned in the center of the back.
4. Connect the waist belt. (If so equipped)
5. Connect the leg straps.
6. Adjust shoulder straps.
7. Connect and adjust chest strap.
8. Be sure to adjust all buckles equally until a snug, comfortable fit is achieved. You should be able to push two fingers between the strap and your body. If your entire hand or fist fits, then the straps need to be adjusted.

Figure 10: Vest Style Donning

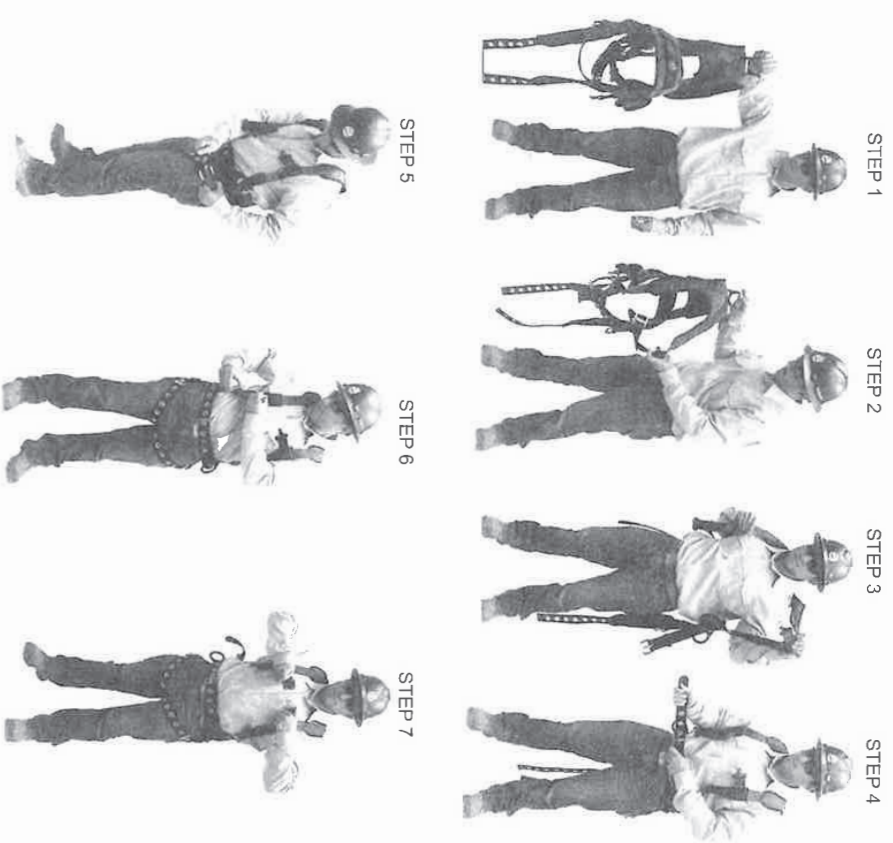
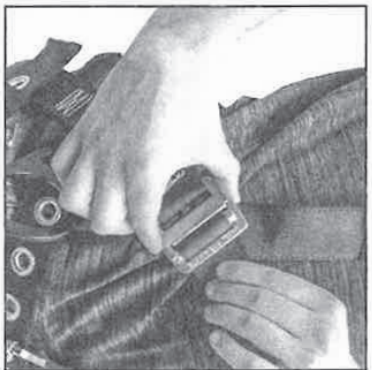
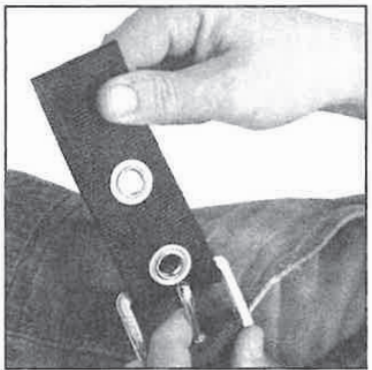


Figure 10-1: Buckle Connections

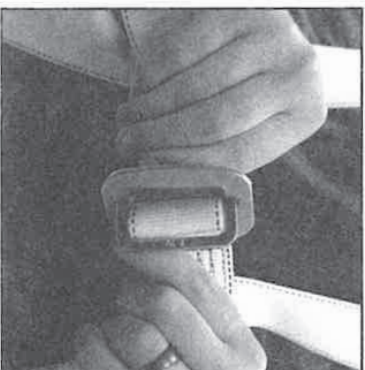
Friction Buckle



Grommet and Tongue Buckle



Mating or Pass-Through



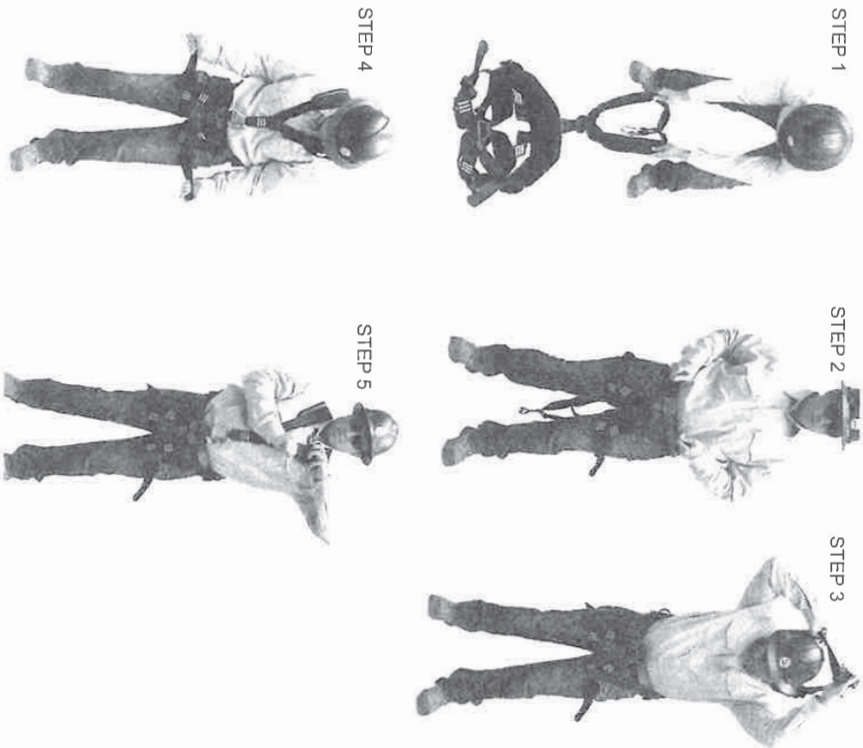
Quick Connect



**B. Step In Style: (See Figure 11)**

1. Lay the harness out on the ground in front of user.
2. Step into leg loops. Pull the harness up to the waist. The waist strap has an adjustment located on each hip. There is a buckle on each side of the waist pad. It is important to adjust both of these about the same distance. This will ensure the harness is in the center of the lower body. The waist belt should sit on the waist with the D-ring being right at the belly button areas.
3. Take the upper part of the harness and slide it up and over the head. Connect the carabiner through the loop where the D-ring is attached, going behind the D-ring.
4. Tighten the leg straps. These straps should be comfortably snug around the thighs.
5. There are 2 adjustment areas on the upper part of the harness. Below the rear dorsal D, and above the front sternum D on the left shoulder. By using these buckles together, position the harness on the upper body so the front D-ring is near the lower center of the rib cage, and the back D-ring is between the shoulder blades.
6. Check to be sure during donning that one adjustment did not alter the fit in another area. At the leg and waist strap areas, the straps should be snug. You should be able to push two fingers between the strap and your body. If your entire hand or fist fits, then the straps need to be adjusted.

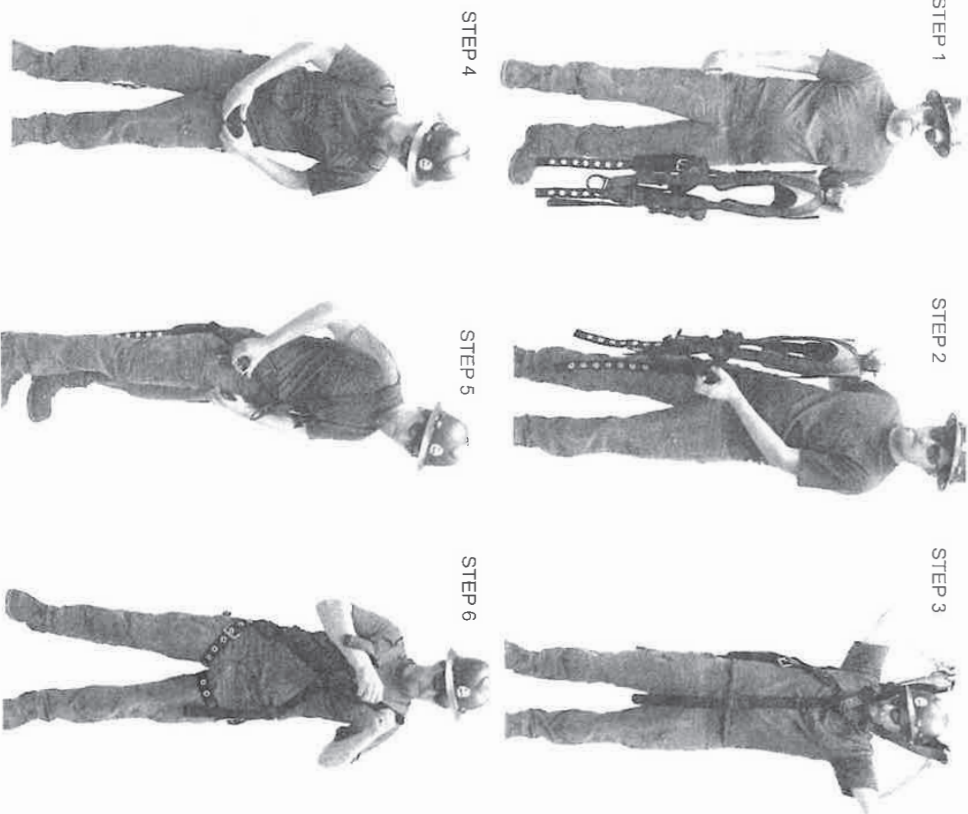
**Figure 11: Step In Style Donning**



**C. Cross-over Style: (See figure 12.)**

1. Grasp the harness by the back D-ring and shake it to allow the straps to fall into position.
2. Unbuckle the left side buckle and leg straps.
3. Place the harness over your head with your head being between the front and back D-rings.
4. Connect the left side buckle.
5. Connect the leg straps.
6. Adjust shoulder strap so that front D-ring is centered on your lower chest and the back D-ring is centered between your shoulder blades.
7. Be sure to adjust all buckles equally until a snug, comfortable fit is achieved. You should be able to push two fingers between the strap and your body. If your entire hand or fist fits, then the straps need to be adjusted.

**Figure 12: Cross-over Style Donning**



## 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 and trained in the correct care and use of this equipment. Be aware of the operating characteristics, application limits, and the consequences of improper use.

### 4.2:

Training should be conducted without the risk of a fall hazard to the user. Training should be repeated on a periodic basis.

## 5.0 Inspection:

**A. Frequency:** FrenchCreek products must be visually inspected before each use and regularly by a competent person other than the user, and at intervals of no more than a year as part of a documented safety program. Inspect the product daily for any of the conditions explained in this manual. If any of these conditions are present, the product should immediately be removed from service unless deemed useable by a competent person.

### B. Criteria: (Figures 13-17.)

- 1. Hardware:** Inspect all snap hooks, buckles, carabiners, D-rings, connectors, etc. for distortions, cracks, corrosion, or pitting of the metal surfaces. Keepers and latches on snap hooks and carabiners should open and close smoothly and completely, locking features must be operating and keep the device from opening. Keeper and latch springs must exert sufficient force to firmly close and lock. (Figure 13.)
- 2. Thimbles:** Thimbles in rope, cable lanyards and lifelines must be present and firmly seated into the eye of the splice or crimp. Thimble edges must not have any sharp edges and must be free from distortion and cracks. Ferrules are to be inspected for cracks and distortions. (Figure 14.)
- 3. Webbing:** All webbing should be bent over a pipe or mandrel to reveal any cuts, snags, tears, or breaks. Swelling, discoloration and charring are indication of chemical or heat damage. Inspect all stitching for any loose, pulled, broken or missing stitches. (Figure 15.)
- 4. Rope:** Rope lanyards or lifelines are to be rotated during inspection looking for any fuzzy, worn, broken or cut fibers. Inspect for burrs and discoloration. The rope should have a uniform diameter throughout its length. Inspect the rope splice closely to ensure it is tight. (Figure 16.)
- 5. Cable:** Cable lanyards and lifelines are to be rotated during inspection looking for cuts, frays, kinks, broken strands, or unusual wearing of the cable. (Figure 17.)
- 6. Fall Arrest Impact Indicators:** Inspect the stitching on both indicators for tears in the stitching or webbing that has unfolded. Indicator(s) should be inspected before each use. (Figure 17.1)

**Note:** An inspection log should be maintained by the company safety officer indicating the product inspection, findings, and disposition.

### Figure 13-17: Inspection of Products



Figure 13

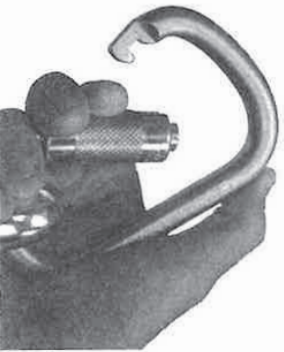


Figure 14



Figure 16



Figure 17

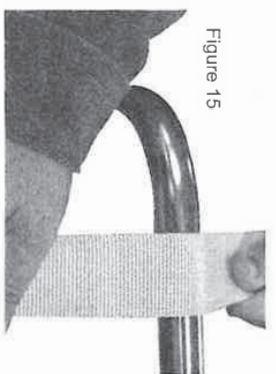


Figure 15

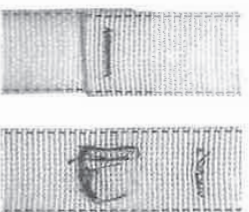


Figure 17.1



Figure 20

**FrenchCreek Production, Inc.**  
 100 N. 13th Street  
 Franklin, PA 16323

877-228-9327  
[www.frenchcreekproduction.com](http://www.frenchcreekproduction.com)

Manufacturer's instructions supplied with this product at the time of shipment must be read, understood, and followed. Failure to do so may result in serious injury or death. Contact FrenchCreek Production if instruction manual is needed.

Model: 631

Size: M-XL

Material: POLYESTER

Date Mfg: Jun, 2019

Lot: 123456

SN: 10884651



Capacity: 400 lbs. (181 kg) • Length: 5'7" (170 cm)  
 OSHA 1910.67 • ANSI Z359.1-2007

**INSTRUCTIONS**

-Harness must be worn in the full arrest position. Do not use the full arrest harness for fall arrest. A proper D-ring and attachment are not for use for positioning, suspension, or retrieval only.

-Only attach to compatible connecting hardware meeting government standards for full arrest.

-Full arrest shock absorber must support a minimum of 5,000 lbs. per attached worker and be independent of worker support.

-Do not use the full arrest harness for fall arrest. A proper D-ring and attachment are not for use for positioning, suspension, or retrieval only.

-Always visually check that all buckles are properly adjusted and closed before use.

-For use with a fall protection system.

-With each use always visually check that 1) each strap hook is fully engaged, 2) ring or anchor point 2) the webbing are from directly closed, locked, and the gates are never load bearing. Never rely solely on the feel or sound of a strap hook engagement.

-Inspect before each use. Remove from service if defects are found or if product has been subjected to an arresting force.

**MADE IN U.S.A.**

INSPECTION GRID	
Y1	J I E M A M J J A S I O N I D
Y2	
Y3	
Y4	

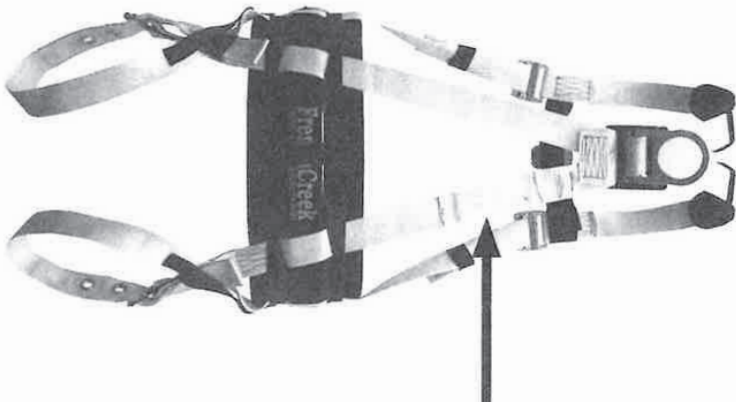


Figure 21

**FrenchCreek Production, Inc.**  
 Model No: 450A Type I Length: 6'1" Material: NYLON Capacity: 400 LBS  
 Mfg Date: Jan, 2018 Always Use a Snap Hook with a Minimum of 5' of Free End Always Use a Snap Hook with a Minimum of 5' of Free End Always Use a Snap Hook with a Minimum of 5' of Free End Always Use a Snap Hook with a Minimum of 5' of Free End  
 This END must be attached to a "D" Ring of an approved harness.  
 Meets ANSI Z359.1-2007 and OSHA requirements  
 100 N. 13th Street Franklin, PA 16323 877-228-9327 www.frenchcreekproduction.com Proudly Manufactured in the U.S.A.

**FrenchCreek Production, Inc.**  
 Model No: 446AW Type I Length: 6'1" Material: POLYESTER Capacity: 400 LBS (181 kg) • Length: 5'7" (170 cm)  
 Mfg Date: Jan, 2018 Always Use a Snap Hook with a Minimum of 5' of Free End Always Use a Snap Hook with a Minimum of 5' of Free End Always Use a Snap Hook with a Minimum of 5' of Free End Always Use a Snap Hook with a Minimum of 5' of Free End  
 This END must be attached to a "D" Ring of an approved harness.  
 Meets ANSI Z359.1-2007 and OSHA requirements  
 100 N. 13th Street Franklin, PA 16323 877-228-9327 www.frenchcreekproduction.com Proudly Manufactured in the U.S.A.

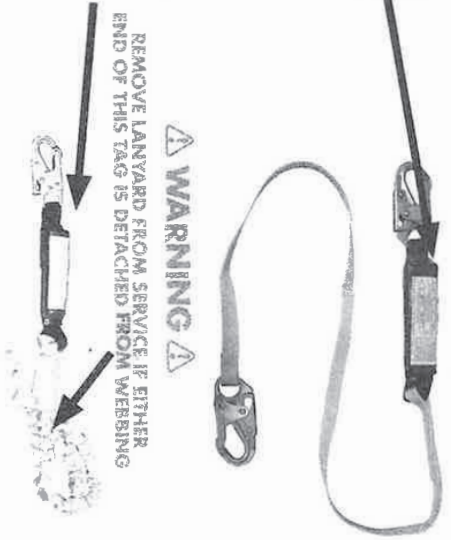


Figure 22



Figure 23

100 N. 13th Street  
Franklin, PA 16323  
FrankCreek 877-228-9327  
www.frenchcreekproduction.com

**Model No:** 450  
**Length:** 6 FT  
**Material:** NYLON  
**Mfg Date:** Jun, 2019  
**Lot:** 55555 **SN:** 12345678

ANSI Type II lifeline  
ANSI Type I lanyard if used  
with approved shock-absorber

**DO NOT REMOVE LABEL**

WARNING: Manufacturer's instructions supplied with this product at time of shipment must be followed. Failure to do so could result in serious injury or death. Contact FrenchCreek for more information. Do not use if wear or damage is present. Items not meeting inspection criteria must be immediately removed from service. Snap a damaged item must be compatible. This item is not for use in fall protection. This item is performed by FrenchCreek or its authorized agents only. Equipment modification or misuse voids warranty. Made in U.S.A.

Capacity: 130 - 310 lbs. ANSI - Meets ANSI Z359.1-12  
Capacity: 400 lbs. OSHA - Meets OSHA requirements

Figure 25

100 N. 13th Street  
Franklin, PA 16323  
FrankCreek 877-228-9327  
www.frenchcreekproduction.com

**Model No:** ITEM NBR  
**Length:** 50 FT  
**Material:** POLYBLEND  
**Mfg Date:** Jun, 2019  
**Lot:** 55555 **SN:** 18402586

ANSI Type I lifeline  
ANSI Type I lanyard if used  
with approved shock-absorber

**DO NOT REMOVE LABEL**

WARNING: Manufacturer's instructions supplied with this product at time of shipment must be followed. Failure to do so could result in serious injury or death. Contact FrenchCreek for more information. Do not use if wear or damage is present. Items not meeting inspection criteria must be immediately removed from service. Snap a damaged item must be compatible. This item is not for use in fall protection. This item is performed by FrenchCreek or its authorized agents only. Equipment modification or misuse voids warranty. Made in U.S.A.

Capacity: 130 - 310 lbs. ANSI - Meets ANSI Z359.1-12  
Capacity: 400 lbs. OSHA - Meets OSHA requirements

Figure 24

100 N. 13th Street  
Franklin, PA 16323  
FrankCreek 877-228-9327  
www.frenchcreekproduction.com

**Model No:** 450  
**Length:** 6 FT  
**Material:** NYLON  
**Mfg Date:** Jun, 2019  
**Lot:** 55555 **SN:** 12345678

ANSI Type II lifeline  
ANSI Type I lanyard if used  
with approved shock-absorber

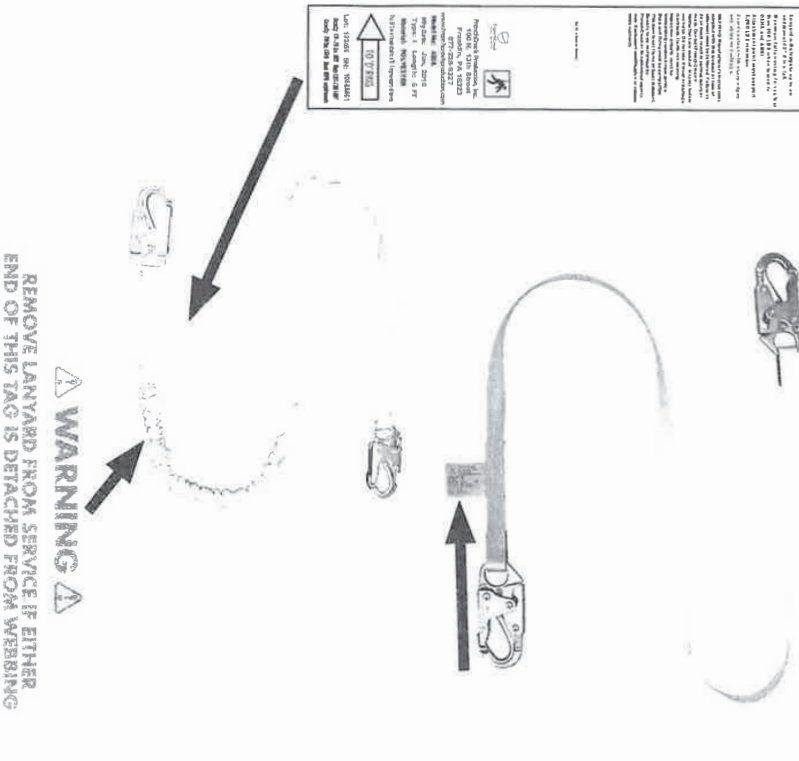


Figure 26

**Warning: User Capacity Range 130-310 lbs.**  
**6ft. 900lbs.**  
Maximum Free Fall  
Maximum Deployment Distance 4ft  
Forces may increase when cold and/or wet  
Read Instructions Before Use

**Warning: User Capacity Range 130-310 lbs.**  
**12ft. 1350lbs.**  
Maximum Free Fall  
Maximum Deployment Distance 6ft  
Forces may increase when cold and/or wet  
Read Instructions Before Use



#### Warranty:

All equipment offered by FrenchCreek Production, Inc. is warranted against factory defects in workmanship and materials for a period of one year from date of installation or use by the owner, providing that no more than two years has passed from time of shipment. After notification in writing, FrenchCreek Production will promptly repair or replace any defective items, and reserves the right to have defective equipment returned to the factory before making repairs or replacements. This warranty does not cover any damages resulting from use, wear, abuse, damage in transit, or any other damage out of the control of FrenchCreek Production. Warranty is applicable to original purchaser only.

*Owned and Operated Exclusively in the U.S.A.*



**FrenchCreek**  
FALL SAFETY



100 N. 13th St. • Franklin, PA 16323 | Toll Free: 877.228.9327 | 814.437.4808 | Fax: 814.437.2544 | [www.frenchcreekproduction.com](http://www.frenchcreekproduction.com)

#### ANSI/ASSE Z359 REQUIREMENTS FOR PROPER USE AND MAINTENANCE OF FULL BODY HARNESSES

- 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/ASSE 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.
2. Correct fit of a Full Body Harness is essential to 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 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 the 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 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 10-16 PROVIDE ADDITIONAL INFORMATION CONCERNING THE LOCATION AND USE OF VARIOUS ATTACHMENTS THAT MAY BE PROVIDED ON THIS FBH**

**10. 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 pint 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. See ANSI/ASSE 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 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 strap or ropes including cracks, sharp edges, deformation, corrosion, chemical attack, excessive heating, alteration and excessive wear.
- Evidence of defect in or damage to strap or ropes including fraying, unsplicing, unlaying, kinking, knotting, roping, broken or pulled stitches, excessive elongation, 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.

## Inspection and Maintenance Log

Date of Manufacture:

Model Number:

Date Purchased:

Inspection Date	Inspection Items Noted	Corrective Action Taken	Maintenance Performed
Approved By			
Approved By			
Approved By			
Approved By			
Approved By			
Approved By			
Approved By			
Approved By			