## (A) SAFEWAZE

10' Tech Tripod Manual


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

Always verify the latest revision of the Safewaze Manual is being utilized. Visit the Safewaze website, or contact Customer Service, for updated manuals.

## ©IMPORTANT:

- Please refer to this manual for essential instructions on the use, care, or suitability of this equipment for your application. Contact Safewaze for any additional questions.
- Record all important product information prior to use. Documentation of all Competent Person annual inspections is required in the Inspection Log.


## USER INFORMATION

Date of First Use: $\qquad$
Serial Number: $\qquad$
Trainer: $\qquad$
User: $\qquad$

## SAFETY INFORMATION AND PRECAUTIONS

- The manufacturer's instructions must be provided to users of this equipment.
- The user must read, understand, and follow all safety and usage information contained within this manual.
- The user must safely and effectively use the 10 ' Tech Tripod and all equipment used in conjunction with the tripod.
- Failure to follow all safety and usage information can result in serious injury or death.


## ©Warnings:

Regulations included herein are not all-inclusive, are for reference only, and are not intended to replace a Competent Person's judgment or knowledge of federal or state standards.

## The warnings indicated below are designed to minimize risk associated with the use of the 10' Tech Tripod.

- Users should consult with their doctor to verify ability to safely absorb the forces of a fall arrest event. Fitness level, age, and other health conditions can greatly affect an individual's ability to withstand fall arrest forces. Women who are pregnant and individuals considered minors must not use any Safewaze equipment.
- Do not alter or misuse equipment. Only Safewaze, or entities authorized in writing by Safewaze, may make repairs to Safewaze fall protection equipment.
- A Competent Person must conduct an analysis of the workplace and anticipate where workers will be conducting their duties, the route they will take to reach their work, and any existing and potential fall hazards. The Competent Person must choose the fall protection equipment to be utilized. Selections must account for all potential hazardous workplace conditions. All fall protection equipment should be purchased in new and unused condition.
- Training of Authorized Persons to correctly install, inspect, disassemble, maintain, store, and use equipment must be provided by a Competent Person. Training must include the ability to recognize fall hazards, minimize the likelihood of fall hazards, and the correct use of personal fall arrest systems.
- Equipment that is exposed to fall arrest forces must be immediately removed from service and destroyed.
- Equipment designated for fall protection must never be used to lift, hang, support, or hoist tools or equipment unless specifically certified for such use.
- Use of a body belt is not authorized for fall arrest applications.
- Work directly under the anchor point as much as possible to minimize swing fall hazards.
- The user must ensure that there is adequate fall clearance when working at height.
- Avoid using the system in applications where engulfment hazards exist.
- If work is conducted in a high heat environment, ensure that Arc Flash or other suitable fall protection equipment is utilized.
- Avoid moving machinery, sharp and/or abrasive edges, and any other hazard that could damage or degrade the component.
- Utilize extra caution to keep lifeline free from any obstructions including, but not limited to, surrounding objects, tools, equipment, moving machinery, co-workers, yourself, or possible impact from overhead objects.
- Ensure all feet of the tripod are secured with the chain to resist moving, splaying, or shifting from the tripod's set location.
- Always account for the direction and strength of forces on the tripod. Improper forces could cause system to fall over.
- Do not attach any user equipment to the tripod until system is fully assembled, anchored, and adjusted for specific application.
- Do not adjust location, height, or stance of the tripod while in use.
- Do not exceed maximum allowed number of users on the system or capacity of the system.


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### 1.0 INTRODUCTION

Thank you for purchasing a Safewaze 10' Tech Tripod. This manual must be read and understood in its entirety and used as part of an employee training program as required by OSHA or any applicable state agency.

The 10' Tech Tripod is designed to be used as an adjustable anchorage point for fall protection, fall restraint, rescue, confined space, and material hauling. The multiple configuration options of the tripod make it suitable for many applications, including Construction, Transportation, General Industry, Oil, Utilities, Trench, Mining, Cliff, and Rescue work zones.

The massive stance of the tripod adjusts up to 18 ' to cover confined spaces, trenches, bridges, mines, rescue sites, inspections, and more. The design of the tripod allows for over-edge, cliffs, and vertical wall usage. A Safety Chain and heavy-duty storage bag are included with every tripod. The models included in the 10' Tech Tripod series, as well as their configurations, can be found on Pages 10 and 11.

### 2.0 INTENDED USE

The equipment covered in this manual is intended for use as part of a complete personal fall protection system. Use of this equipment for any other purpose including, but not limited to, sports or recreational activities, non-approved material handling applications, or other action not described in these instructions, is not approved by Safewaze. Use of this equipment in a manner outside the scope of those covered within this manual can result in serious injury or death. The equipment covered in this manual must only be used by trained personnel in workplace applications. If the anchor is used for training, a secondary fall protection system must be used so the trainee is not exposed to accidental fall hazards.

### 3.0 APPLICABLE SAFETY STANDARDS

When used according to instructions, this product meets ANSI Z359.18-2017 (Type T), Z359.4-2013, and Z117.1-2022 standards and OSHA 1926.502 and 1910.140 regulations. Applicable standards and regulations depend on the type of work being done and may include state-specific regulations. Refer to local, state, and federal requirements for additional information on the governing of occupational safety regarding Personal Fall Arrest Systems (PFAS).

### 4.0 WORKER CLASSIFICATIONS

## Read and understand the definitions of those who work in proximity of, or may be exposed to, fall hazards:

Qualified Engineer: A person with a Bachelor of Science in Engineering degree from an accredited college or university. They are able to assume personal responsibility for the development and application of engineering science and knowledge in the design, construction, use, and maintenance of their projects.

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

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

Authorized Person: A person approved or assigned by the employer to perform a specific type of duty or duties, or to be at a specific location or locations, at the jobsite.

## It is the responsibility of a Qualified Person or Engineer to supervise the jobsite and ensure safety regulations are met.

### 5.0 RESCUE PLAN

Prior to the use of this equipment, employers must create a rescue plan in the event of a fall and provide the means to implement the plan through training. The rescue plan must be specific to the project. The rescue plan must allow for employees to rescue themselves or be promptly rescued by alternative means.

This plan must be communicated to/understood by all equipment users, authorized persons, and rescuers. Rescue operations may require specialized equipment beyond the scope of this manual. Every user must be trained in the inspection, installation, operation, and proper usage of their Rescue Equipment and Rescue Plan. See ANSI Z359.4-2013 for specific rescue information. Immediately seek medical attention in the event a worker suffers a fall arrest incident.

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

### 6.0 PRODUCT LIMITATIONS

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

- Capacity Range: ANSI 130-310 lbs. ( $59-141 \mathrm{~kg}$ ) and OSHA up to 420 lbs . (191
kg ). *including clothing, tools, equipment, etc.
- Anchorage: Anchorages selected for fall arrest systems shall have a strength capable of sustaining static loads applied in the directions permitted by the system of at least:

1. $5,000 \mathrm{lbs}$. 2267.9 kg ) for non-certified anchorages, or
2. Two times the maximum arresting force for certified anchorages.

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

From OSHA 1926.502 and 1910.66: Anchorages used for attachment of personal fall arrest systems shall be independent of any anchorage being used to support or suspend platforms and capable of supporting at least 5,000 lbs. ( 2267.9 kg ) per user attached. Or, anchorages for attachment should be designed, installed, and used as part of a complete PFAS which maintains a safety factor of at least two and is under the supervision of a Qualified Person.

- Locking Speed: The nature of this equipment requires a clear fall path to ensure the SRL will lock in the event of a fall. Working in obstructed fall paths, cramped areas, or on moving materials like sand and grain, may not allow the user's body to gain enough speed buildup to cause the SRL to engage and lock in the event of a fall.
- Free Fall: For confined space scenarios, maximum allowable free fall is based on the PFAS used. Limit free fall distance by keeping anchorage in-line with work area.
- Swing Falls: As the user moves laterally away from an overhead anchor point, the risks related to swing falls increase. The force of striking an object involving swing fall can in some instances generate more forces than a fall with the user wearing no fall protection equipment. Minimize swing falls by working as directly below the anchorage point as possible.
- Fall Clearance: The amount of feet required below the working surface for the personal fall arrest system to work correctly.

Additional Fall Clearance is required for falls from a kneeling or crouched position. If a Swing Fall hazard exists, the total vertical fall distance will be greater than if the user had fallen directly under the anchor point. This manual provides information regarding Swing Fall hazards and additional Fall Clearance Requirements in Section 9.

- Hazards: Extra precautions should be taken if this equipment is used in an environment where hazards exist. Hazards can include, but are not limited to, moving machinery, high voltage equipment or power lines, caustic chemicals, corrosive environments, toxic or explosive gases, or high heat. Avoid working in an area where overhead equipment or personnel could fall and contact the user, fall protection equipment, or the lifeline. Areas where the user's lifeline may cross or tangle with the lifeline of another user should be avoided. Do not allow the lifeline to pass under arms or between the legs.
- Sharp Edges: Safewaze Class 2 SRLs are designed for use in both Overhead and Leading Edge Environments. Should a specific work area have extremely sharp edge(s) that may come into contact with the lifeline constituent of the SRL, a Class 2 SRL is required.


### 7.0 ALLOWED ANCHORAGE APPLICATIONS

Personal Fall Arrest: Safewaze Anchors are designed as an anchor point to support a maximum of 1 PFAS when utilized for fall protection applications. The structure to which the anchor is attached must withstand loads applied in the directions permitted by the system of at least $5,000 \mathrm{lbs}$. $(22 \mathrm{kN})$ or be designed with a safety factor of two to one. Maximum allowable free fall is based on the PFAS used.


Restraint: Safewaze Anchors are authorized for use in Restraint applications. The structure to which the anchor is attached must withstand loads applied in the directions permitted by the system of at least $1,000 \mathrm{lbs}$. NO free fall is permitted. Restraint systems may only be used on surfaces with slopes up to 4/12 (vertical/horizontal). For Restraint applications, the allowable attachment points to the harness are Dorsal, Front/Sternal, Side, and Shoulder D-rings.

Work Positioning: Safewaze Anchors are authorized for use in Work Positioning applications. Work Positioning allows a worker to be supported during suspension while freeing both hands to conduct work operations. The structure to which the anchor is attached must withstand loads applied in the directions permitted by the system of at least $3,000 \mathrm{lbs}$. Maximum allowable free fall is 2 ft . For positioning applications, the allowable attachment points to
 the harness are the Side D-rings.

Rescue/Confined Space: Safewaze Anchors are authorized for use in Rescue/ Confined Space applications. Rescue systems are utilized to safely recover a worker from a confined location or after exposure to a fall. Composition of rescue systems can vary based upon the type of rescue involved. The structure to which the anchor is attached must withstand loads applied in the directions permitted by the system of at least $3,100 \mathrm{lbs}$. NO free fall is permitted for rescue scenarios. For confined space scenarios, maximum allowable free fall is based on the PFAS used. For these applications, the allowable attachment points to the harness are Dorsal, Front/Sternal, and Shoulder D-rings.


### 8.0 PRODUCT SPECIFICATIONS

- Maximum Weight Capacity: ANSI $130-310 \mathrm{lbs}$. ( $59-141 \mathrm{~kg}$ ) and OSHA up to 420 lbs . ( 191 kg ). *including clothing, tools, equipment, etc.

Note: For Rescue scenarios only, 2 users (up to 310 lbs . each) are allowed.

- System Capacity: Maximum of 620 lbs. ( 281 kg )
- Material Lifting: Maximum of 620 lbs . 281 kg )
- Minimum Breaking Strength of Captive Eye: $5,000 \mathrm{lbs}$. (22.24 kN)
- Minimum Breaking Strength of Anchor Points: $5,000 \mathrm{lbs}$. (22.24 kN)
- Working Temperature: $-30^{\circ} \mathrm{F}\left(-34^{\circ} \mathrm{C}\right)$ to $130^{\circ} \mathrm{F}\left(54^{\circ} \mathrm{C}\right)$
- Free Fall: For confined space scenarios, maximum allowable free fall is based on the PFAS used.
- Collapsed Tripod Dimensions: Length-97 in. (246.4 cm), Width- $12 \mathrm{in} .(30.5 \mathrm{~cm})$, Depth- 12 in. ( 30.5 cm )
- Working Height Dimensions: Measurements are from working surface to captive eye.
- Stance \#1A: $74.5 \mathrm{in} .(189.2 \mathrm{~cm})$-- minimum working height
- Stance \#1B: $119 \mathrm{in} .(302.3 \mathrm{~cm})$-- maximum working height
- Stance \#2A: 53.5 in. ( 135.9 cm ) -- minimum working height
- Stance \#2B: $84 \mathrm{in} .(213.4 \mathrm{~cm})$-- maximum working height
- Over Edge: Dependent on work zone. Should be determined by Competent Person. See Section 15 for more details.

10' TECH TRIPOD DIMENSION DIAGRAMS:

| COLLAPSED |  |
| :---: | :---: |
|  | STANCE \#2A |
| STANCE \#2B |  |

## 10' TECH TRIPOD CONFIGURATIONS AND KITS

$\quad$| 10' Tech Tripod Basic: |
| :--- |
| - Tripod with Head Unit |
| - |
| - Detent Pins (6) |

- Cotter Pins (3)
- Safety Chain
- Manual
- Tripod Bag

|  | 10' Tech Tripod Kit: <br> 65' Material Winch, 65' 3-Way <br> - Tripod with Head Unit <br> - Detent Pins (6) <br> - Cotter Pins (3) <br> - Safety Chain <br> - Manual <br> - Tripod Bag <br> - Pulley (2) <br> - Carabiner (2) <br> - Universal Tripod Bracket (2) <br> - 65' Material Winch <br> - 65' 3-Way System |
| :---: | :---: |
|  | $\frac{10^{\prime} \text { Tech Tripod Kit: }}{65 \text { ' } 3 \text {-Way }}$ <br> - Tripod with Head Unit <br> - Detent Pins (6) <br> - Cotter Pins (3) <br> - Safety Chain <br> - Manual <br> - Tripod Bag <br> - Pulley (1) <br> - Carabiner (1) <br> - Universal Tripod Bracket (1) <br> - 65' 3-Way System |
|  | 10' Tech Tripod Kit: <br> 65' Material Winch <br> - Tripod with Head Unit <br> - Detent Pins (6) <br> - Cotter Pins (3) <br> - Safety Chain <br> - Manual <br> - Tripod Bag <br> - Pulley (1) <br> - Carabiner (1) <br> - Universal Tripod Bracket (1) <br> - 65' Material Winch |


| TABLE 1: COMPONENT SPECIFICATIONS |  |  |
| :---: | :---: | :---: |
| Part Number(s) | Description | Materials |
| $\begin{aligned} & \text { 022-11029, 022-11033, } \\ & 022-11034,022-11035, \\ & 022-11036,022-11037 \end{aligned}$ | 10' Tech Tripod | Aluminum |
| N/A | Head Unit | Aluminum |
| N/A | Captive Eye | Stainless Steel |
| N/A | Tripod Feet | Powder Coated Steel Feet, Rubber Foot Pads |
| N/A | Fasteners | Zinc Plated Steel |
| N/A | Detent Pins | Nylon, Stainless Steel |
| $\begin{aligned} & \text { 019-11005, } \\ & 019-11015 \end{aligned}$ | 3-Way System/ Universal Mount (65' or 120') | Aluminum Housing, Steel/Plastic Crank Handle, Zinc Plated Steel Bracket, Galvanized Steel Cable, YCM Steep Snap Hook |
| $\begin{aligned} & \text { 019-11007, } \\ & 019-11008 \end{aligned}$ | Personnel Winch (65' or 120') | Powder Coated Steel Device, Plated Steel Components, Galvanized Steel Cable, Rubber Handles, Plastic Cover |
| 019-11009 | Material Winch (65') | Powder Coated Steel Device, Plated Steel Components, Galvanized Steel Cable, Plastic Handle |
| 022-11031 | Perimeter Warning Line | Polyester Webbing, Zinc Plated Steel Adjuster, Nylon Brackets |
| 022-11030 | Tripod Step | Powder Coated Steel Step, Nylon and Stainless Steel Detent Pin |
| 020-11025 | Aluminum Tripod Pulley | Aluminum |
| FS1015 | Carabiner | YCM Steel |
| 022-11032 | Tripod Bag | Water Repellent Tarpaulin, Polyester Fabric, Webbing, Nylon Wheels and Adjusters |
| 019-11010 | Universal Tripod Bracket | Galvanized Steel |
| 019-11017 | Tripod Replacement Chain | Zinc Plated Steel |
| 023-11039 | Tripod TieBack Line | 7/18" Polyester/Nylon Kernmantle Rope, YCM Steel Carabiners, Anodized Aluminum Adjuster |

### 9.0 FALL CLEARANCE

Always select an SRL/lanyard and anchor point location that limits free fall and swing fall as much as possible. Refer to the chosen PFAS system manuals for information on fall clearance. A free fall of more than 6 ft . could cause excessive arrest forces that could result in serious injury or death.

- Fall Clearance: There must be sufficient clearance below the anchorage connector to arrest a fall before the user strikes the ground or an obstruction. When calculating fall clearance, account for all applicable factors. A Competent Person must reference the entire system's components to calculate Fall Clearance.


## THE FOLLOWING DIAGRAMS ARE EXAMPLES ONLY.

Note: Numbers used in these examples are based on ZERO offset and setback with the anchor directly overhead or below, to represent an inline Fall Clearance calculation. Consult with a Competent Person when working in different scenarios and when using non-Safewaze equipment.

6' FREE FALL LANYARD (OVERHEAD) EXAMPLE



- Swing Falls: Prior to installation or use, make considerations for eliminating or minimizing all swing fall hazards. Swing falls occur when the anchor is not directly above the location where a fall occurs. Always work as close to, or in line with, the anchor point as possible. Swing falls significantly increase the likelihood of serious injury or death in the event of a fall (Figure 1). Ensure a Competent Person includes swing fall in calculations if the hazard exists.

FIGURE 1: SWING FALL


### 10.0 COMPATIBILITY OF CONNECTORS

- Safewaze equipment is designed for, and tested with, associated Safewaze components or systems. If substitutions or replacements are made, ensure all components meet the applicable ANSI requirements. Read and follow manufacturer's instructions for all components and subsystems in your PFAS. Not following this guidance may jeopardize compatibility of equipment and possibly affect the safety and reliability of the system.
- Connectors are compatible with connecting elements when they have been designed to work together in such a way that their sizes and shapes do not cause their gate mechanisms to inadvertently open regardless of how they become oriented.
- Connectors (hooks, carabiners, and D-rings) must be capable of supporting at least 5,000 lbs. ( 22 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 (Figure 2).
- Connectors must be compatible in size, shape, and strength.
- Self-locking snap hooks and carabiners are required by OSHA guidelines.
- Some specialty connectors have additional requirements. Contact Safewaze if you have any questions about compatibility.

FIGURE 2: UNINTENTIONAL DISENGAGEMENT


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

### 11.0 MAKING CONNECTIONS

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

Safewaze connectors (hooks, carabiners, and D-rings) are designed to be used only as specified in each product's manual. See Figure 3 for examples of inappropriate connections. Do not connect snap hooks and carabiners:

- To a D-ring to which another connector is attached.
- In a manner that would result in a load on the gate (with the exception of tie-back hooks).
- In a false engagement, where features that protrude from the snap hook or carabiner catch on the anchor, and without visual confirmation seems to be fully engaged to the anchor point.
- To each other.
- By wrapping the web lifeline around an anchor and securing to lifeline, except as allowed for tie-back models.
- To any object which is shaped or sized in a way that the snap hook or carabiner will not close and lock, or that roll-out could occur.
- In a manner that does not allow the connector to align properly while under load. FIGURE 3: INAPPROPRIATE CONNECTIONS



Large throat snap hooks must not be connected to standard size D-rings or similar objects which will result in a load on the gate if the hook or D-ring twists or rotates, unless the snap hook complies with ANSI Z359.1-2007 or ANSI Z359.12 and is equipped with a $3,600 \mathrm{lb}$. ( 16 kN ) gate.

### 12.0 INSTALLATION WARNINGS

- The tripod must be standing up in its collapsed position (Page 9) prior to making any leg adjustments.
- Do NOT make adjustments to the legs if tripod is lying down.
- Do NOT apply force to the legs of the tripod when the tripod is lying down.



### 13.0 INSTALLATION \& USE OF 10' TECH TRIPOD: STANCE \#1A AND \#1B

Prior to the installation of the tripod, a Competent Person must determine that the installation location is stable, level, and capable of supporting intended loads on the tripod. The installation location must allow for the PFAS lifeline to be installed directly above the intended work location. Users must be aware of and avoid potential hazards, such as electrical, thermal, chemical, or gaseous. Whenever possible, prepare the 10' Tech Tripod away from the work zone and then move it towards the installation location once its erected.

## Installation Steps:

1. Stand the tripod up in the collapsed position (Page 9). At the Head Unit of the tripod, remove the detent pins and adjust each leg to the \#1 position of the Head Unit (Figure 4). Reinstall detent pins.
2. Remove the leg detent pins. First, adjust the top Interior Tripod Leg Sleeve length as needed by depressing the button locks and sliding the Interior Tripod Leg Sleeve out until buttons lock and re-engage (Figure 5). Reinstall detent pin. Then, repeat with the bottom Interior Leg Sleeve. Stance \#1A is the shortest with no extension needed, \#1B is the longest.
3. Install any necessary devices onto the Universal Tripod Brackets and connectors onto the Head Unit (Section 20).

Note: If a height adjustment or installation of devices is required while in the upright position, there are Tripod Steps (022-11030) available to assist in accessibility.
4. Connect the tripod legs together using the provided Safety Chain. Thread the chain through the holes located in the Tripod Feet. Be sure to thread the chain through the same hole location of each foot-- either use all the inside holes or all the outside holes. Remove all slack from the chain. Ensure all feet of tripod are secured with the chain to resist moving, splaying, or shifting from the tripod's set location.

Note: Safety Chain MUST be installed to complete installation. Do not use tripod without Safety Chain installed.


FIGURE 5: TRIPOD LEG EXTENSION


### 14.0 INSTALLATION \& USE OF 10' TECH TRIPOD: STANCE \#2A AND \#2B

Prior to the installation of the tripod, a Competent Person must determine that the installation location is stable, level, and capable of supporting intended loads on the tripod. The installation location must allow for the PFAS lifeline to be installed directly above the intended work location. Users must be aware of and avoid potential hazards, such as electrical, thermal, chemical, or gaseous. Whenever possible, prepare the 10' Tech Tripod away from the work zone and then move it towards the installation location once its erected.

## Installation Steps:

1. Stand the tripod up in the collapsed position (Page 9). At the Head Unit of the tripod, remove the detent pins and adjust each leg to the \#2 position of the Head Unit (Figure 6). Reinstall detent pins.
2. Remove the leg detent pins. First, adjust the top Interior Tripod Leg Sleeve length as needed by depressing the button locks and sliding the Interior Tripod Leg Sleeve out until buttons lock and re-engage (Figure 5). Reinstall detent pin. Then, repeat with the bottom Interior Leg Sleeve. Stance \#2A is the shortest with no extension needed, \#2B is the longest.
3. Install any necessary devices onto the Universal Tripod Brackets and connectors onto the Head Unit (Section 20).

Note: If a height adjustment or installation of devices is required while in the upright position, there are Tripod Steps (022-11030) available to assist in accessibility.
4. Connect the tripod legs together using the provided Safety Chain. Thread the chain through the holes located in the Tripod Feet. Be sure to thread the chain through the same hole location of each foot-- either use all the inside holes or all the outside holes. Remove all slack from the chain. Ensure all feet of tripod are secured with the chain to resist moving, splaying, or shifting from the tripod's set location.

Note: Safety Chain MUST be installed to complete installation. Do not use tripod without Safety Chain installed.
FIGURE 6: HEAD UNIT \& LEG ANGLE ADJUSTMENT FOR STANCE \#2A \& \#2B


### 15.0 INSTALLATION \& USE OF 10' TECH TRIPOD: OVER EDGE

The 10' Tech Tripod can be used as an anchor in an edge environment or in a confined space scenario where the entry location limits the tripod's stance (Figure 7). The edge configuration is an off-set stance. In this position, the two front legs of the tripod are vertical, or near vertical, at an edge or wall and the rear leg is extended in the back. The tripod Head Unit should still be level in this stance.

FIGURE 7: OVER EDGE CONFIGURATION EXAMPLE


Over edge installations are inherently more complex than a standard tripod configuration and users must ensure that adequate anchorage is used to tie-back the tripod. For edge applications, there must be 2 tie-back anchor locations to secure the tripod. Each tie-back anchorage must be at least $6 x$ the users weight capacity. See Section 16 for more detail.

Note: Minimum setback requirements are not specified in this manual due to varying work zone surfaces and scenarios. The Competent Person must determine the required amount of setback for the specific installation location.

Prior to the installation of the tripod, a Competent Person must determine that the installation location is stable, level, and capable of supporting intended loads on the tripod. The installation location must allow for the PFAS lifeline to be installed directly above the intended work location. Users must be aware of and avoid potential hazards, such as electrical, thermal, chemical, or gaseous. Whenever possible, prepare the 10' Tech Tripod away from the work zone and then move it towards the installation location once its erected.

## Installation Steps:

1. Stand the tripod up in the collapsed position (Page 9). At the Head Unit of the tripod, remove the detent pins and adjust each leg. The two front legs should be adjusted to the \#1 detent pin position. The rear leg should be adjusted to the \#2 detent pin position (Figure 8). Reinstall detent pins.
2. Remove the leg detent pins. First, adjust the top Interior Tripod Leg Sleeve length as needed based on operational requirements by depressing the button locks and sliding the Interior Tripod Leg Sleeve out until buttons lock and re-engage (Figure 5). Reinstall detent pin. Then, repeat with the bottom Interior Leg Sleeve.

Note: The front legs should be vertical, or near vertical, and the rear leg should extend back as far as the work environment allows.

1. Install any necessary devices onto the Universal Tripod Brackets and connectors onto the Head Unit (Section 20).

Note: When the tripod is in the edge configuration, the work radius angle can range from $15^{\circ}$ behind the Head Unit to $45^{\circ}$ in front of the Head Unit (Figure 11). The tripod does not always have to be square on the edge. The tripod can be moved back and angled to accommodate the necessary work zone area. If a height adjustment or installation of devices is required while in the upright position, there are Tripod Steps (022-11030) available to assist in accessibility.
2. Connect the tripod legs together using the provided Safety Chain. Thread the chain through the holes located in the Tripod Feet. Be sure to thread the chain through the same hole location of each foot-- either use all the inside holes or all the outside holes. Remove all slack from the chain. Ensure all feet of tripod are secured with the chain to resist moving, splaying, or shifting from the tripod's set location.

Note: If the tripod is installed on dirt, grass, or sand, the Tripod Feet must be in the vertical position for the teeth to aid in security. In the vertical position, the Safety Chain should be threaded through the top opening of the feet (Figure 13). Safety Chain MUST be installed to complete installation. Do not use tripod without Safety Chain installed.

FIGURE 8: HEAD UNIT \& LEG ANGLE ADJUSTMENT FOR OVER EDGE


### 16.0 TIE-BACK ANCHORAGE

## Tie-Back Anchorage:

The tie-back lines can be loosely connected and used as a secure belay to position the tripod into place. One, or both, can be connected to the tripod Head Unit before moving the tripod towards the installation location.

Two tie-back lines are required. Safewaze recommends two Tripod Tie-Back Lines (023-11039) for a secure, easy-to-adjust anchorage connector.

## Tie-Back Anchorage Installation Steps:

1. Connect the tie-back carabiners of the Tripod Tie-Back Lines at the connection points on either side of the tripod's Head Unit. Do not install both tie-back lines on the same side of the Head Unit (Figure 9).
2. The Tripod Tie-Back Lines must stay within a $30^{\circ}$ to $90^{\circ}$ angle range from the tripod's Head Unit to the intended anchorages (Figure 10).
3. The tie-back zone must be as wide as, or wider than, the stance of the two front Tripod Feet and up to a $60^{\circ}$ angle on either side of the tripod legs (Figure 10).
4. Once the Tripod Tie-Back Lines are connected to the tripod Head Unit and the intended anchorages, they must be tightened to secure the tripod into place.

FIGURE 9: TIE-BACK LINE OFFSET LIMITATIONS


FIGURE 10: TIE-BACK LINE LIMITATIONS


FIGURE 11: TIE-BACK WORK RADIUS


### 17.0 INSTALLATION \& USE OF 10' TECH TRIPOD: TRENCH

Prior to the installation of the tripod, a Competent Person must determine that the installation location is stable, level, and capable of supporting intended loads on the tripod. The installation location must allow for the PFAS lifeline to be installed directly above the intended work location. Users must be aware of and avoid potential hazards, such as electrical, thermal, chemical, or gaseous. Whenever possible, prepare the 10' Tech Tripod away from the work zone and then move it towards the installation location once its erected.

Trench environments present additional hazards not covered in this manual. These hazards may include collapse, cave-in, atmospheric contamination, standing water, inadequate shoring, sloping, etc. Refer to standards and regulations specific to the type of work being performed. Prepare and establish a rescue plan prior to work operations.

If the trench work zone calls for a configuration where the two front legs of the tripod are in a different stance than the back leg, tie-backs should be used (See Section 16).

## Installation Steps:

1. Stand the tripod up in the collapsed position (Page 9). At the Head Unit of the tripod, remove the detent pins and adjust each leg to the necessary position based on operational requirements (Figures 4 \& 6). Reinstall detent pins.
2. Remove the leg detent pins. First, adjust the top Interior Tripod Leg Sleeve length as needed based on operational requirements by depressing the button locks and sliding the Interior Tripod Leg Sleeve out until buttons lock and re-engage (Figure 5). Reinstall detent pin. Then, repeat with the bottom Interior Leg Sleeve.
3. Install any necessary devices onto the Universal Tripod Brackets and connectors onto the Head Unit (Section 20).

Note: If a height adjustment or installation of devices is required while in the upright position, there are Tripod Steps (022-11030) available to assist in accessibility.
4. Connect the tripod legs together using the provided Safety Chain. Thread the chain through the holes located in the Tripod Feet. Be sure to thread the chain through the same hole location of each foot-- either use all the inside holes or all the outside holes. Remove all slack from the chain. Ensure all feet of tripod are secured with the chain to resist moving, splaying, or shifting from the tripod's set location.

Note: Safety Chain MUST be installed to complete installation. Do not use tripod without Safety Chain installed.

FIGURE 12: TRENCH CONFIGURATION EXAMPLE


### 18.0 INSTALLATION INFORMATION TO CONSIDER

The cotter pins on the Head Unit are permanent and should not be removed. Only adjust the Head Unit by utilizing the removable detent pin. If the working zone surface is higher or lower in certain areas, the user can adjust the tripod's leg heights to keep the tripod's Head Unit level.

The tripod's Safety Chain is typically sufficient for securing the tripod (except for in an over edge configuration). However, there are times when tie-back anchors are needed due to the mounting surface's levelness, stability, composition, etc. It may be necessary to create additional support structures by utilizing tie-back anchors. The Competent Person needs to verify when tie-back anchorage is needed.

Depending on where the tie-back anchorage location is, the user should select the Head Unit connection points closest to where the anchor is. Do not use the far Head Unit connection points or two connection points on the same side (Figure 9).

Depending on the work surface, it may be necessary to configure the two front Tripod Feet towards the nearest edge in a vertical position for best grip (Figure 13). In the vertical position, the Safety Chain should be threaded through the top opening of the feet.

If the tripod is installed on grass or sand or if Safewaze does not offer an anchor available for the work zone surface, consider anchors like spike anchors, tree anchors, duckbill earth anchors, or ground spider anchors.

FIGURE 13: VERTICAL TRIPOD FEET POSITION


### 19.0 POSSIBLE TRIPOD CONFIGURATIONS




### 20.0 COMPATIBLE DEVICES \& CONNECTION POINTS

## 3-Way System, Personnel Winch, Material Winch:

- The Universal Tripod Bracket is designed to allow for quick connection and disconnection of up to three Safewaze devices to the 10' Tech Tripod.
- One section of the bracket (fixture plate) comes pre-installed onto the tripod leg. The second component (device bracket) comes pre-attached to the device.

Note: Although the fixture plate comes pre-installed onto a leg of the tripod, it can be adjusted in height and orientation by loosening the lock nuts on the back of the fixture plate and sliding the plate up or down the green leg section. Additionally, it can be rotated to the inside or outside of the tripod leg. With the plate in the selected location on the tripod leg, re-tighten the lock nuts to 15 $\mathrm{ft}-\mathrm{lb}$. Do not over tighten. The bracket can also be moved from one tripod leg to another if necessary, and may be oriented on the inside or outside of the tripod leg based on jobsite parameters or user preference (Figures 16 \& 17).

- Universal Bracket/Device Connection:

1. Remove the detent pin from the fixture plate and position the device with the lifeline oriented towards the top of the tripod and the device bracket hooks facing down (Figure 14, 1).
2. Place the device bracket inside the fixture plate. Ensure the device bracket hooks are properly seated onto the crossbar of the fixture plate. With the device hooks securely seated on the crossbar, rotate the device upwards until holes in both sections of the bracket are realigned. Re-install the detent pin through the aligned holes (Figure 14, 2). The device lifeline can now be routed through appropriate rigging at the Head Unit (Figure 15).

FIGURE 14: UNIVERSAL BRACKET/DEVICE CONNECTION


FIGURE 15: DEVICE LIFELINE RIGGING


Note: Carabiner (FS1015) and pulley (020-11025) can be purchased separately if expanding system with additional devices.

FIGURE 16: CORRECT DEVICE INSTALLATION


FIGURE 17: INCORRECT DEVICE INSTALLATION


Note: Do not mount device on Interior Tripod Leg Sleeve

SRL, Rescue, and Descent Devices:

- Any of the 6 anchor points on the Head Unit, or the captive eye of the Head Unit, can be used to quickly connect devices to the tripod (Figure 18).

FIGURE 18: HEAD UNIT ANCHOR POINTS


## Tripod Steps:

- A Tripod Step (022-11030), or multiple Tripod Steps, can be easily installed onto the tripod. The attachable/removable steps assist in device or accessory connection at the Head Unit of the tripod (Figure 19).

Note: Although the Tripod Steps are mounted to the inside of the tripod, climbing operations must be approached and utilized from outside of the tripod frame (Figure 20).

1. Use the detent pins to attach or remove the Tripod Steps into the tripod's frame (Figure 21).

FIGURE 19: TRIPOD STEPS
FIGURE 20: CORRECT USE


FIGURE 21: TRIPOD STEPS INSTALLATION


## Perimeter Warning Line:

- The Perimeter Warning Line (022-11031) can be easily installed onto the tripod to prevent unauthorized entry into the work area (Figure 22).

1. Install the 3 brackets on the tripod legs-- 1 bracket on each leg.
2. Thread the end of the Perimeter Warning Line through each of the 3 brackets.
3. Pull the free end of the Perimeter Warning Line through the cam buckle until the line is snug. Secure any excess webbing to prevent trip hazards.

FIGURE 22: PERIMETER WARNING LINE


### 21.0 INSPECTION

The user must keep instructions available for reference and record the date of first use on Page 2.

The user must immediately remove the system from service if defects or damage are found, or if exposed to forces of fall arrest.

## Work Area:

- Inspect the work area to ensure the location is free of any damage including, but not limited to, debris, cracking, rot, decay, structural deterioration, rust, and any hazardous materials.
- A Competent Person must determine that the installation location to be utilized will support the intended loads.


## Frequency:

- A Competent Person, other than the user, must inspect the 10' Tech Tripod at least once annually.
- While conducting inspections, the Competent Person must consider all applications and hazards that the equipment may have been subjected to while in use.
- Competent Person inspections must be recorded in the Inspection Log included in this manual (Page 32), as well as the inspection table labels on each product individually. The Competent Person must place their initials in the block which corresponds with the month and year that the inspection is performed. All individual labels on the equipment will be initialed in the same manner.
- See Table 2 for more information regarding inspection frequency requirements.

TABLE 2: INSPECTION FREQUENCY

| Type of Use | Application Examples | Conditions of Use | Inspection Frequency by Competent Person |
| :---: | :---: | :---: | :---: |
| Infrequent to Light | Rescue and Confined Space, Factory Maintenance | Good Storage Conditions, Indoor or Infrequent Outdoor Use, Room Temperature, Clean Environments | Annually |
| Moderate to Heavy | Transportation, Residential Construction, Utilities, Warehouse | Fair Storage <br> Conditions, Indoor and Extended Outdoor Use, All Temperatures, Clean or Dusty Environments | Semi-Annually to Annually |
| Severe to Continuous | Commercial Construction, Oil and Gas, Mining | Harsh Storage Conditions, Prolonged or Continuous Outdoor Use, All Temperatures, Dirty Environment | Quarterly to SemiAnnually |

## Directions:

- Prior to each use, inspect the tripod for possible deficiencies including, but not limited to, missing parts, corrosion, deformation, pits, burrs, rough surfaces, sharp edges, cracking, rust, paint buildup, excessive heating, alteration, and missing or illegible labels.
- Prior to each use, the user must inspect and verify that each individual component of the tripod is safe for use:

1. Inspect Head Unit for damage such as cracks, deformation, corrosion. Ensure eye-bolt anchor point is undamaged and serviceable. Inspect that all detent pins, bolts, etc., are present and functional.
2. Inspect Exterior Tripod Leg Sleeves for any warping, bends, cracks, corrosion, or other damage. Inspect that all detent pins, bolts, etc., are present and functional. Ensure no damage exists that would prevent the Interior Tripod Leg Sleeve from moving freely during adjustment.
3. Inspect the Interior Tripod Leg Sleeve for any bends, excessive corrosion, warping, cracks, or other potential damage that could possibly prevent the leg from moving freely during adjustment.
4. Ensure the Tripod Feet are present and in good working condition. Feet should swivel freely and not bend or stick.
5. Inspect Safety Chain for any kinks, broken links, corrosion, chemical exposure, or any other damage.
6. Inspect the Tripod Steps for any deformation, cracks, bends, or corrosion. Inspect that all detent pins, bolts, etc., are present and functional.
7. Inspect the Perimeter Warning Line for adequate tension, tears, and signs of any damage.

Note: Refer to the specific manufacturer's product manual to inspect any devices connected to the 10' Tech Tripod.

FIGURE 23: COMPONENTS INSPECTION


| 1 | Head Unit |
| :---: | :---: |
| 2 | Exterior Tripod Leg Sleeve |
| 3 | Interior Tripod Leg Sleeve |
| 4 | Tripod Feet |
| 5 | Safety Chain |
| 6 | Tripod Steps (if equipped) |
| 7 | Perimeter Warning Line (if equipped) |

### 22.0 MAINTENANCE

## Repairs:

Only Safewaze, or entities authorized in writing by Safewaze, may make repairs to Safewaze fall protection equipment.

## Cleaning:

The tripod can be cleaned with water and mild soap. The user should remove all dirt, possible corrosives, and contaminants from the system prior to, and after, each use. Never use any type of corrosive substance to clean the system. Excess water should be blown out with compressed air. Hardware can be wiped off with a clean, dry cloth. Do not store system if wet or damp. Allow equipment to fully dry before being stored.

## Storage:

Prior to installation, store the system in a cool, dry area where it will not be exposed to extreme light, extreme heat, excessive moisture, or possibly corrosive chemicals or materials.

When not in use, utilize the provided Tripod Bag to properly store each component in the labeled pockets of the Tripod Bag.

## Lifespan:

The working life of the tripod is determined by work conditions, care, and inspection provided. So long as the system and all components pass inspection, it may remain in service.

## Disposal:

Dispose of the tripod if inspection reveals an unsafe or defective condition. If damaged and unserviceable, the system should be destroyed so as not to allow accidental re-use.

### 23.0 LABELS



| Inspection <br> Date: | Inspector: | Pass/Fail: | Comments/ <br> Corrective Action: |
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