

Material Winch Manual for Confined Space Operations



ANSI	Z117.1-2022	
OSHA	1926.502, 1910.66, 1910.140	

019-11009 65' Material Winch

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.

MIMPORTANT:

- 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

, 00±11	
Date of First Use: _	
Serial Number:	
Trainer: _	
User: _	

► 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 Material Winch and all equipment used in conjunction with the product.
- 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 Material Winch and associated equipment.

- Users shall 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.
- A Competent Person must choose the fall protection equipment to be utilized.
 Selections must account for all potential hazardous workplace conditions. All fall protection equipment shall be purchased in new and unused condition.
- If work is conducted in a high heat environment, ensure that Arc Flash or other suitable fall protection equipment is utilized.
- 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.
- Anchors that are exposed to fall arrest forces must be immediately removed from service and destroyed.
- 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 designated for fall protection must never be used to lift, hang, support, or hoist tools or equipment unless specifically certified for such use.
- · Avoid using the Material Winch in applications where engulfment hazards exist.
- 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.
- Do not exceed maximum allowed number of users on the system or capacity of the system.
- Do not use this product for the entering or exiting of personnel into, or out of, confined spaces.
- Operator must maintain constant contact with and direct the cable and materials into, and out of, the confined space.
- Workers must be clear of material staging area while materials are raised or lowered.



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► 1.0 INTRODUCTION

Thank you for purchasing the Safewaze Material Winch for confined space applications. 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 Material Winch is designed for hoisting and lowering materials in confined space environments. OSHA defines a confined space as any space that has limited openings for entry and exit, that is large enough for a worker to enter bodily and perform work, and that is not designed for continuous worker occupancy (utility manholes, silos, underground utility vaults, storage containers, pits, pipelines, etc.).

This winch is not to be used for the entering or exiting of personnel into, or out of, confined spaces.

019-11009 requires the Universal Tripod Bracket (sold separately as 019-11010) for installation.

► 2.0 INTENDED USE

The equipment covered in this manual is intended for use as part of a complete Personal Fall Protection and Material Handling System. This device is not to be used as a 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.

3.0 APPLICABLE SAFETY STANDARDS

When used according to instructions, this product meets **ANSI Z117.1-2022** standard and **OSHA 1926.502**, **1910.66**, **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).

The system has been tested in compliance with requirements of **ANSI/ASSP Z359.7**. The testing does not extend to the substrate to which the system is attached.

► 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 AND SPECIFICATIONS

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

- Maximum Material Capacity: 620 lbs. (281.22 kg)
- System Capacity: 620 lbs. (281.22 kg)
- Hazards: Extra precautions shall 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 shall be avoided. Do not allow the lifeline to
 pass under arms or between the legs.
- · Sharp Edges: Avoid sharp edges when using this device.
- Installation: Universal Tripod Bracket (019-11010) required for installation must be purchased separately.



Handle Length: 14"

• Product Weight: 32 lbs. (14.1 kg)

· Compatible Components:

» 019-11010 → Universal Tripod Bracket

» 019-11000 → 7' Adjustable Tripod

» 022-11029 \rightarrow 10' Tech Tripod Basic

» 020-11025 → Aluminum Tripod Pulley

» FS970-PK → Tripod Pulley

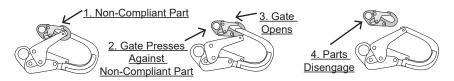
TABLE 1: MATERIALS			
Housing	Powder Coated Steel		
Handle	Plated Steel with Plastic Grip		
Device Bracket	Plated Steel		
Cable	3/16" Galvanized Steel		
Snap Hook	Plated Steel		

▶ 7.0 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.

► 8.0 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 lb. (16 kN) gate.



▶ 9.0 INSTALLATION AND OPERATION OF MATERIAL WINCH WITH UNIVERSAL BRACKET

Prior to installing the Material Winch, ensure the Universal Tripod Bracket is properly installed on the tripod. **Note**: The Universal Tripod Bracket (019-11010) is required for installation and not included with this device.

One section of the bracket (mounting bracket) comes pre-installed onto the tripod leg. The second component (device bracket) comes pre-attached to the device.

Although the fixture plate comes pre-installed onto a leg of the tripod, it can be adjusted in height and orientation:

- 1. Loosen the lock nuts on the back of the mounting bracket and slide the bracket up or down the tripod's leg section.
- 2. With the bracket in the selected location on the tripod leg, re-tighten the lock nuts to 15 ft-lb. Do not over tighten.

The bracket can be moved from one tripod leg to another if necessary. Depending on the installation location, the bracket may be oriented on the inside or outside of the location based on jobsite parameters or user preference. Refer to the specific tripod instructions to verify.

Do not mount the bracket on the interior sleeve of a tripod leg (Figure 4).

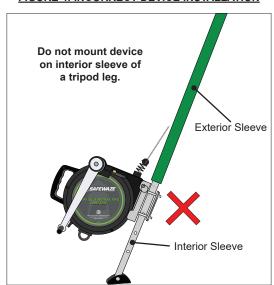


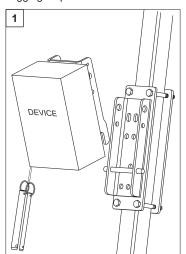
FIGURE 4: INCORRECT DEVICE INSTALLATION

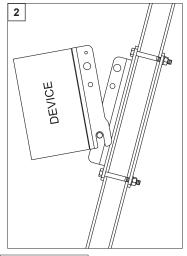
Material Winch Installation Steps:

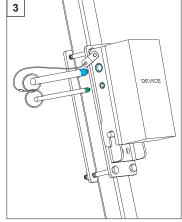
Remove the detent pin(s) from the mounting bracket and position the Material Winch with the lifeline oriented towards the top of the tripod and the device bracket hooks facing down.

- 1. Place the device bracket on the inside or outside* of the mounting bracket. Ensure the device bracket hooks are properly seated onto the crossbar of the mounting bracket (1). *Note: The device bracket will sit on the inside or the outside of the mounting bracket depending on what mounting bracket is used.
- 2. With the device bracket hooks securely seated on the crossbar of the mounting bracket, rotate the Material Winch upwards until holes in both sections of the bracket are realigned (2).
- 3. Re-install the appropriate detent pin* through the aligned holes (3).
 *Note: The proper detent pin will match the mounting bracket hole size.

The device lifeline can now be routed through an appropriate rigging location. Refer to the manual of the installation location (7' Adjustable Tripod, 10' Tech Tripod, etc.) for rigging steps.







Material Winch Operation Steps:

<u>∧ Important:</u> Prior to operation, ensure the device is secured on the installation location and the lifeline is installed properly according to the installation location's (7' Adjustable Tripod, 10' Tech Tripod, etc.) manual.

The Material Winch handle controls the raising and lowering of the lifeline:

- To lower the Lifeline, turn the Handle in a counterclockwise direction.
- To raise the Lifeline, turn the Handle in a clockwise direction.

*Note: Winch operator must maintain a minimum of 15 lbs. on the winch cable at all times while in use.

► 10.0 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, if visual fall indicator is deployed, 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 device 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 15), 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 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 Semi- Annually

Directions:

- Prior to each use, inspect the Material Winch 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. Inspect all components of the device including the applicable brackets, housing, connectors, fasteners, and entire length of lifeline.
- Prior to each use, the user must inspect and verify that each individual component (Image 2) of the Material Winch is safe for use:
 - The Handle must move freely and must not interfere with any other component.
 - 2. The cable from the unit will pay out and retract smoothly when rotating the Handle in the corresponding clockwise or counterclockwise direction.
 - a. Pull the lifeline sharply to test its locking function.
 - **b.** The lifeline should lock, and subsequently retract, smoothly and completely back into the unit without hesitation or stoppage.
 - c. Inspect the entire length of lifeline for any damage including, but not limited to, fraying, crushing, bird caging, chemical exposure, heat/ welding spatter, and kinking. The user shall always wear gloves when inspecting the lifeline to prevent injury in the event of cable damage (Image 1).



IMAGE 1: CABLE DAMAGE EXAMPLES

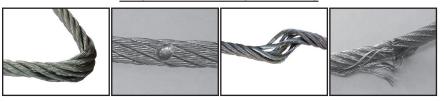


IMAGE 2: MATERIAL WINCH INSPECTION



1	Label	
2	Housing	
3	Handle	
4	Device Bracket	
5	Cable Lifeline	

► 11.0 MAINTENANCE

Repairs:

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

Cleaning:

The device can be cleaned with water and mild soap. The user shall 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 shall 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 device in a cool, dry area where it will not be exposed to extreme light, extreme heat, excessive moisture, or possibly corrosive chemicals or materials

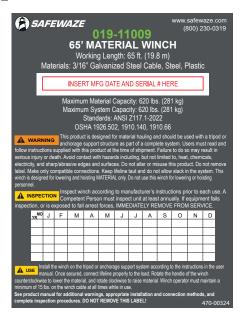
Lifespan:

The working life of the device 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 device if inspection reveals an unsafe or defective condition. If damaged and unserviceable, the system must be destroyed and the lifeline cut so as not to allow accidental re-use.

▶ 12.0 LABEL



ANNUAL INSPECTION FORM

Inspection Date:	Inspector:	Pass/Fail:	Comments/ Corrective Action:



Address: 225 Wilshire Ave SW, Concord, NC 28025

Phone: (800) 230-0319

Fax: 704-262-9051

Email: info@safewaze.com

Website: safewaze.com