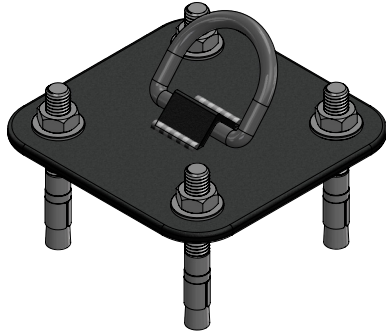




024-4114

## D-Plate Anchor Manual



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

### APPLICABLE SAFETY STANDARDS

When used according to instructions, the Safewaze D-Plate Anchor meets **OSHA 1926.502, 1910.140, 1910.66** 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).

### ⚠WARNING:

The manufacturer's instructions must be provided to users of this equipment. The user must follow the manufacturer's instructions for each component of the system. The user must read and understand these instructions before using this equipment. Manufacturer's instructions must be followed for proper use and maintenance of this equipment. The user must understand how to safely and effectively use the anchor and all equipment used in conjunction with the anchors.

Alterations to this product, misuse of this product, or failure to follow instructions may result in serious injury or death. Avoid moving machinery, sharp and/or abrasive edges, and any other hazard that could damage or degrade the component.

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

### ⚠IMPORTANT:

- Please refer to this manual for essential instruction on the use, care, or suitability of this equipment for your application. Contact Safewaze for any additional questions.
- Only Safewaze, or entities authorized in writing by Safewaze, may make repairs to Safewaze fall protection equipment.
- Record all important product information below prior to use. Documentation of all Competent Person annual inspections is required in the Inspection Log.

### INTRODUCTION

Thank you for purchasing a Safewaze D-Plate Anchor. 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. This manual and any other instructional material must be available to the user of the equipment. Every user must be trained in the inspection, installation, operation, and proper usage of the anchor.

### SPECIFICATIONS

- Capacity: **ANSI 130** to 310 lbs. (59-141 kg), **OSHA 420** lbs. (191 kg) \*including any tools, clothing, accessories, etc.
- For installation and use on structural steel/I-Beams or in fully cured concrete.
- (4) 3-3/4" x 1/2" concrete wedge bolt fasteners included.
- Minimum Breaking Strength: 5,000 lbs. (22 kN)
- Working Load Limit: 2,000 lbs. (9 kN) in fully cured concrete, 2,500 lbs. (11 kN) on steel.
- Material: Powder-Coated Steel
- Suitable for Horizontal Lifeline (HLL) and material hauling use. If used for material hauling, the anchor cannot be used for fall protection.

### USER INFORMATION

Date of First Use: \_\_\_\_\_ Trainer: \_\_\_\_\_

Serial Number: \_\_\_\_\_ User: \_\_\_\_\_

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### WORKER CLASSIFICATIONS

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

**Qualified Engineer:** "Qualified Engineer" means 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:** "Qualified Person" means 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:** "Competent Person" means 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:** "Authorized Person" means 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 complied with.**

### LIMITATIONS

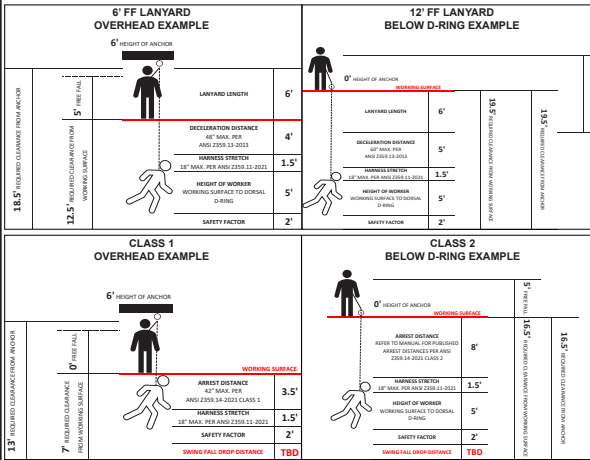
Always select an anchor point location that limits free fall and swing fall as much as possible. A free fall of more than 6 ft. could cause excessive arrest forces that could result in serious injury or death.

Structures for the attachment of the anchorage connector shall support a minimum 5,000 lbs. (22 kN) or be designed with a safety factor of two to one by a Qualified Person.

**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.

#### FALL CLEARANCE DIAGRAMS

\*These diagrams are examples of fall clearance calculations ONLY.



**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.

#### SWING FALL



### ANCHORAGE INSTALLATION LOCATION

A Qualified Person or Engineer must conduct an analysis of the workplace and ensure the anchorage location is capable of withstanding loads from a fall. An anchorage location selected for a Personal Fall Arrest System (PFAS) must have a strength capable of sustaining a static load applied in the direction permitted by the PFAS of at least:

- 5,000 lbs. (2267.9 kg) for non-certified anchorages, or
- Two times the maximum arresting force for certified anchorages, or
- 3,100 lbs. for Rescue applications.

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.

### ALLOWED ANCHOR APPLICATIONS

**\*An anchorage connector is designed for a single user. Only one PFAS should be attached to the anchorage connector at a time.**

**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 lbs. (22 kN) or be designed with a safety factor of two to one. Maximum allowable free fall is based on the connector 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 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 lbs. Maximum allowable free fall is 2 ft. For positioning applications, the allowable attachment points to the harness are the Side D-rings.

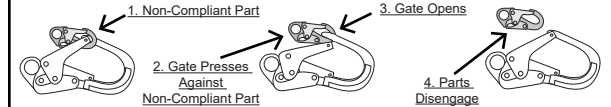
**Rescue/Confined Space:** Safewaze Anchors are authorized for use in Rescue/Confined Space applications. Rescue systems are utilized to safely recover a worker from a confined location or after exposure to a fall. Composition of rescue systems can vary based upon the type of rescue involved. The structure to which the anchor is attached must withstand loads applied in the directions permitted by the system of at least 3,100 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.



### COMPATIBILITY OF COMPONENTS/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.
- 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.

#### 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.

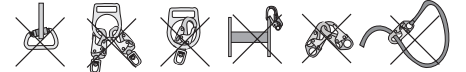
### MAKING CONNECTIONS

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 illustrations below for examples of inappropriate connections. Do not connect snap hooks and carabiners:

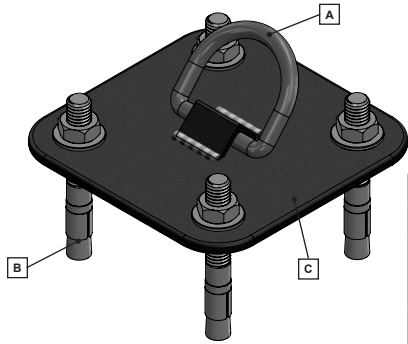
- To a D-ring to which another connector is attached.
- In a manner that would result in a load on the gate (with the exception of tie-back hooks).
- In a false engagement, where features that protrude from the snap hook or carabiner catch on the anchor, and without visual confirmation seems to be fully 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.

#### 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 Z359.12 and is equipped with a 3,600 lb. (16 kN) gate.

## ANCHOR COMPONENTS



Components	
A	D-ring
B	(Provided) Concrete Wedge Bolts
C	Base Plate

## INSTALLATION

Prior to installing an anchorage connector, select a suitable location that will provide proper strength for installation of the anchor as an anchorage for Fall Protection. The work location should be free of debris and other materials or equipment that could interfere with the proper operation of the product. Inspect the intended installation location for hazards that include, but are not limited to, corrosion, cracking, rust staining, holes, deterioration, weathering, electrical hazards, etc.

**Note:** The installation holes must be at least 4" (101.6 mm) away from any edge. If installing more than one anchor, allow for at least 10" (254 mm) of separation between anchors.

**Concrete Installation Steps:** The concrete must be fully cured prior to installation, must have a minimum thickness of 6", and must be 3000 PSI or greater.

1. Drill (4) 1/2" (12.7 mm) holes to a minimum depth of 3-3/4" (95.3 mm).
2. Use a compressor, or other type of pneumatic equipment, to clear the holes of all debris.
3. Place the anchor over the pre-drilled holes and insert the (4) included bolts\* through the base plate of the anchor into the pre-drilled holes.

**\*Note:** If using other bolts, ensure they are (4) 3-3/4" x 1/2" concrete wedge bolt fasteners capable of holding 5,000 lbs. (22 kN) or greater. Follow the manufacturer's instructions of the chosen bolts.

4. Torque the bolts to 45 ft-lbs. Embedment of bolts must be a minimum of 1-3/4" (44.5 mm).
5. Once properly installed, the user may attach a complete and compatible PFAS to the D-ring connection point on the anchor.

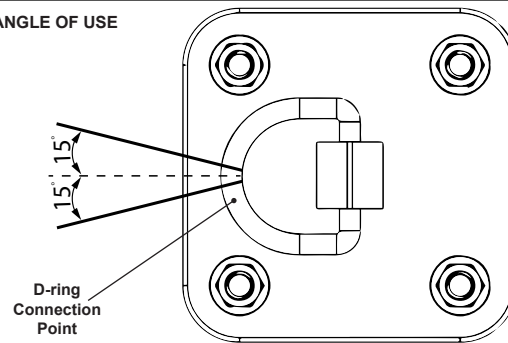
### Steel Installation Steps:

1. Center the anchor on the I-Beam/steel surface. Ensure the anchor base is flush on the installation location.
2. Drill (4) 1/2" (12.7 mm) holes through the desired steel installation location.
3. Place the anchor over the pre-drilled holes and insert (4) Grade 8 steel 1/2" diameter bolts\* through the base plate of the anchor into the pre-drilled holes.

**\*Note:** Bolts not included. The length of the bolts will be dependent on the installation location.

4. Install a washer and lock nut to each bolt to sandwich the anchor and installation location between the head of the bolt and the lock nut. Repeat for each bolt.
5. Verify each washer and lock nut are fully inserted on the thread of each bolt. Tighten and ensure each bolt is secure.
6. Once properly installed, the user may attach a complete and compatible PFAS to the D-ring connection point on the anchor.

### ANGLE OF USE



## INSPECTION & MAINTENANCE

- Prior to initial installation or subsequent removal and reinstallation, the user must ensure that the anchor has no visible damage or defects.
- If removing and reinstalling the anchor, the user must ensure that no damage or warping has occurred due to prior installation or removal.
- If any damage or defects are found, or if the anchor has been exposed to fall arrest forces, the user must IMMEDIATELY remove the anchor from service.
- Inspect the anchor for deficiencies or damage including, but not limited to, sharp edges, rough edges, deformations, corrosion, pits, burrs, chemical exposure, extreme heat exposure, and damaged, missing, or illegible labels.
- The anchor must be inspected at least annually by a Competent Person other than the user. Competent Person inspections must be recorded in the inspection log included in this manual and on the inspection grid label on the anchor.
- Severity of conditions during use of anchor may necessitate increased frequency of documented inspections.
- The user shall remove all dirt, possible corrosives, and contaminants from the anchor prior to, and after, each use.
- The anchor can be cleaned with water and mild soap if necessary. Never use any type of corrosive substance to clean the anchor. Excess water shall be blown out with compressed air. Hardware can be wiped off with a clean, dry cloth.
- When not in use, store the anchor in a cool, dry area where it will not be exposed to extreme light, extreme heat, excessive moisture, or corrosive chemicals/materials.

## WARNINGS

- 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 individuals ability to withstand fall arrest forces.
- Women who are pregnant and individuals considered minors must not use any Safewaze equipment.
- Failure to follow these instructions and warnings could result in serious injury or death in the event of a fall.
- A preplanned rescue procedure in the event of a fall is required. The rescue plan must be specific to the project. The rescue plan must allow for employees to rescue themselves, or to be promptly rescued by alternative means.
- Harnesses or connectors selected for use with any Safewaze anchor must be compatible in size and configuration.
- User must ensure compatibility of snap hooks, carabiners, and other connectors. Any connection which could allow disengagement must be eliminated. Snap hooks and carabiners must be self-locking and self-closing and must never be hooked to each other.
- 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 the existing and potential fall hazards they may be exposed to.
- The Competent Person must choose the fall protection equipment to be utilized.
- Equipment designated for fall protection must never be used to lift, hang, support, or hoist tools or equipment unless specifically certified for such use.

## LABELS

**WARNING**

If used for material handling, the anchor cannot be used for fall protection. Users must read and follow instructions supplied with this product at the time of shipment. Failure to do so may result in serious injury or death. Avoid contact with hazards including, but not limited to, heat, chemicals, electricity, and sharp/burly edges and surfaces. Do not alter or misuse this product. Do not remove label. Make only compatible connections.

**INSPECTION**

Inspect anchor according to manufacturer's instructions prior to each use. A Competent Person must inspect anchor at least annually. If equipment fails inspection, or is exposed to arrest forces, IMMEDIATELY REMOVE FROM SERVICE.

This equipment is designed for use as a fall protection anchor. Suitable for Horizontal Lifeline (HL) and material hauling use.

**SAFAROWE**  
D-PLATE ANCHOR

Part No: 024-014

Minimum breaking strength: 5000 lbs. (22kN)

MPD Code: X000X

Serial No: XXXXXXX





























































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**SAFEWAZE**

# ANNUAL INSPECTION FORM

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

If you have any questions regarding the information in this manual, please contact Customer Service at (800) 230-0319.