



OWNERS MANUAL

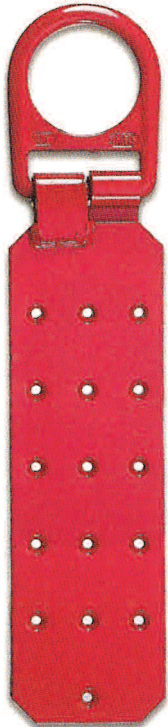
MODEL: US-5072R
 DESCRIPTION: Roof Anchor
 MEETS OSHA & ANSI Z359.1



1-800-850-5914
 PHOENIX, ARIZONA USA
 WWW.ULTRASAFEUSA.COM

USER INSTRUCTION MANUAL

Should be used as part of an employee training program as required by OSHA and is intended to meet the manufacturer's instructions as required by ANSI Z359.1



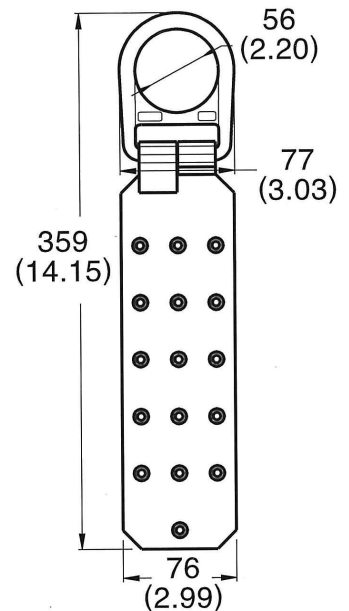
Equipment users must be trained and understand all regulatory requirements applicable to the work place in which the fall protection equipment is to be used. These instructions are not a substitute for a formal fall protection training program. Such training, should include rules and regulations applicable to the work situation, a hand-on opportunity to learn how to wear and attach equipment properly, instructions about adequate anchor points and proper techniques for securing and connecting lanyards, or lifelines, and guidance and demonstration on how to inspect and maintain the equipment.

SYSTEM REQUIREMENTS:

The ULTRA-SAFE anchor brackets are constructed to meet the OSHA/ANSI performance requirements of, anchorage connectors, for a single person, personal fall arrest and restraint systems. In accordance with these specifications the ULTRA-SAFE anchorage connectors are capable of sustaining a static tensile load of 5000 lbs. Therefore the brackets are suitable anchorage for a single person (400 lbs.) use all 12 pc.'s of #12 screws and stagger them 6 per side of base on 20 guage thick metal material. This fall arrest system at 5000 lbs. (when screwed down correctly) Use all 20 pc.'s of 16d galvanized nails and stagger them to the framing member on top of sheathing. A single person fall restraint/positioning system at 3000 lbs. (when nailed down correctly) when installed and used properly. The reusable roof anchor fits any roof pitch allowing anchoring from either side. When installed in accordance with these instructions, it will provide an anchor point at the peak of the roof that is suitable for use with the ULTRA-SAFE fall arrest system. The roof peak anchor should be used in conjunction with wall planks, supported by roofing brackets, when installing conventional roofing systems on truss, rafter, and plywood sheathing constructions.

Construction :

- Plate Steel
- Weight:** 2.5 Lbs.
- Tensile Strength:** 5,000 Lbs.
- Length:** 11 Inches
- Width:** 3 Inches
- Height:** 2.25 Inches (D-Ring)



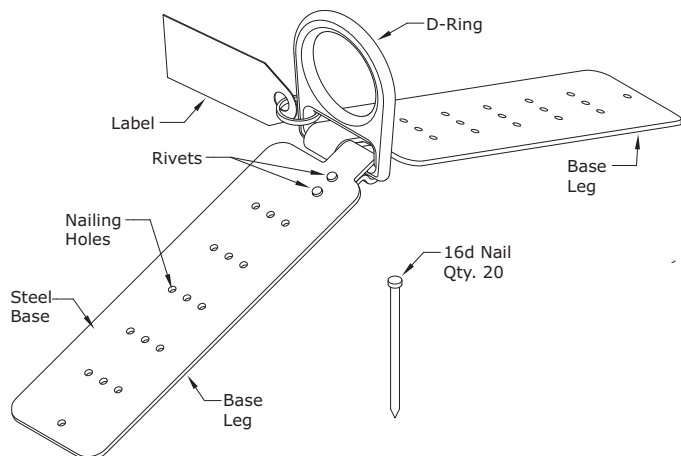
WARNING!

Failure to read and follow these instructions on the use of this product could result in serious personal injury or death. Training and instruction review should be repeated at regular intervals. This product must be used in strict compliance with local, state, and federal OSHA regulations. Use only ANSI, CSA, and OSHA compliant fall arrest systems. Examine product before each use. Discard if damaged by fall or any other incident. The anchor point must be adequate to support the the workers individual personal fall arrest system.

1.0 APPLICATION

1.1 PURPOSE:

The Hinged Roof Anchor is designed to be used as a temporarily installed (not for permanent installation) anchorage connector on wood frame structures. This anchorage connector may be used as part of a personal fall arrest or restraint system. Do not attach a lifeline between two or more roof anchors (i.e. horizontal lifeline system). Do not hang, lift or support tools or equipment from this roof anchor or attach guylines for antennas, phone lines, etc.



A. FALL ARREST APPLICATION:

In this application, the roof anchor is used as part of a complete fall arrest system. Such systems typically include a full body harness and some form of connecting subsystem, such as an energy absorbing lanyard. Maximum permissible free fall is 6 feet. This type of system is used where a free fall is possible before the fall is arrested.

B. RESTRAINT APPLICATION:

In this application, the roof anchor is used as part of a complete restraint system. Such systems typically include a full body harness and a lanyard or restraint line used to restrain or tether the user from reaching a hazard (i.e. leading edge roof work). This type of system is used where no vertical free fall is possible.

1.2 LIMITATIONS:

The following application limitations must be recognized and considered before using this product:

A. ROOF STRUCTURE:

This anchorage connector is intended to be installed on wood framed structures capable of meeting the anchorage strength requirements as set forth in section 2.4. Consult Capital Safety before using these roof anchors on any other roof material.

B. CAPACITY:

This anchorage connector is designed for use by persons with a combined weight (person, clothing, tools, etc.) of no more than 310 lbs. Only one personal protective system may be connected to the roof anchor at any time.

C. PERSONAL FALL ARREST SYSTEM (PFAS):

PFASs selected for use with this roof anchor must meet the system performance and other criteria as stated in section 3.2.

D. FREE FALL:

PFASs used with these roof anchors must be rigged in such a way as to limit the free fall to a maximum of 6 feet (reference ANSI Z359.1). See associated connecting subsystem DBI-SALA instructions for further information.

E. FALL CLEARANCE:

Make certain that enough clearance exists in your fall path to prevent striking an object. The amount of clearance needed is dependent upon the type of connecting subsystem used (energy absorbing lanyard, self retracting lifeline, etc.), and the anchorage location. Refer to the DBI-SALA instructions of the connecting subsystem or component for more information on fall clearance.

F. RESTRAINT SYSTEMS:

Restraint systems selected for use with this roof anchor must meet the requirements given in section 3.2.

G. CORROSION:

Use near sea water or other corrosive environments may require more frequent inspections or servicing (replacement) to assure corrosion damage is not affecting the performance of the product.

H. CHEMICAL HAZARDS:

Solutions containing acids, alkali, or other caustic chemicals, especially at elevated temperatures, may cause damage to this equipment. Consult Capital Safety if doubt exists concerning installing this equipment where chemical hazards are present.

I. ELECTRICAL HAZARDS:

Do not install roof anchors where they or the user may come into contact with electrical power lines.

J. TRAINING:

This equipment is intended to be installed and used by persons who have been properly trained on its correct application. See section 4.0.

1.3 Refer to national consensus (including ANSI Z359.1, applicable local, state, and federal (OSHA) requirements) governing this equipment for more information on anchorage connectors, and associated system components.

2.0 SYSTEM REQUIREMENTS

2.1 COMPATIBILITY OF CONNECTORS:

The Hinged Roof Anchor is designed for use with approved components and subsystems only. Substitutions or replacements made with non-approved components or subsystems may jeopardize compatibility of equipment and may effect the safety and reliability of the complete system.

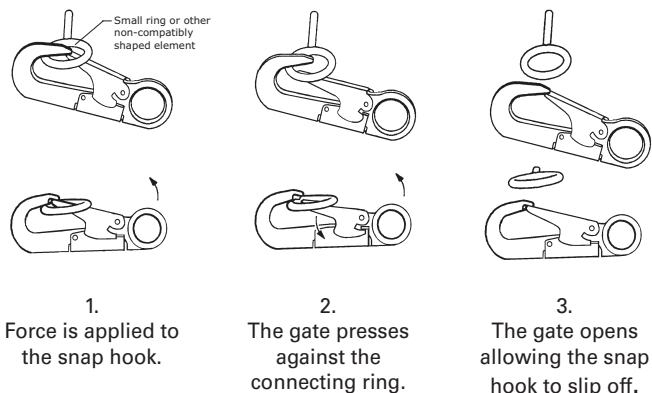
2.2 COMPATIBILITY:

Connectors are considered to be compatible with connecting elements when they have been designed to work together in such a way that their sizes and shapes do not cause their gate mechanisms to inadvertently open regardless of how they become oriented. Contact the manufacturer if you have any questions about compatibility.

Connectors (hooks, carabiners, and D-rings) must be capable of supporting at least 5,000 lbs. (22.2kN). Connectors must be compatible with the anchorage or other system components. Do not use equipment that is not compatible. Non-compatible connectors may unintentionally disengage. See Figure 2. Connectors must be compatible in size, shape, and strength. Self locking snap hooks and carabiners are required by ANSI Z359.1 and OSHA.

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

Figure 2 -
Unintentional Disengagement (Roll-out)



2.3 MAKING CONNECTIONS:

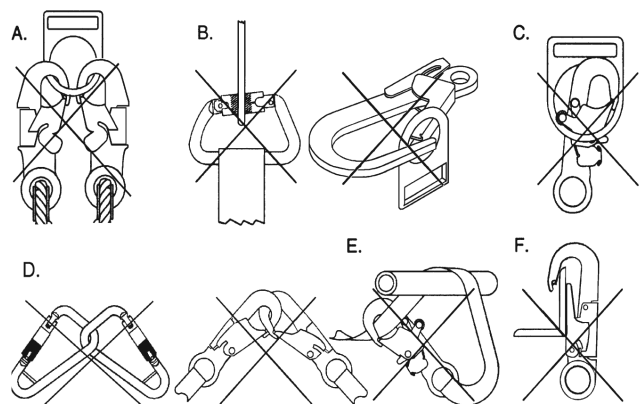
Only use self-locking snap hooks and carabiners with this equipment. Only use connectors that are suitable to each application. Ensure all connections are compatible in size, shape and strength. Do not use equipment that is not compatible. Ensure all connectors are fully closed and locked.

Connectors (snap hooks and carabiners) are designed to be used only as specified in each product’s user’s instructions. See Figure 3 for inappropriate connections. Snap hooks and carabiners should not be connected:

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

- A. To a D-ring to which another connector is attached.
- B. In a manner that would result in a load on the gate.
- C. In a false engagement, where features that protrude from the snap hook or carabiner catch on the anchor and without visual confirmation seems to be fully engaged to the anchor point.
- D. To each other.
- E. Directly to webbing or rope lanyard or tie-back (unless the manufacturer’s instructions for both the lanyard and connector specifically allow such a connection).
- F. To any object which is shaped or dimensioned such that the snap hook or carabiner will not close and lock, or that roll-out could occur.

Figure 3 -
Inappropriate Connections



2.4 ANCHORAGE STRENGTH:

Depending on the application, the anchorage to which the roof anchor is installed must meet strengths as given below:

FALL ARREST: Roof anchors installed for fall arrest applications must be attached to a roof member capable of sustaining static loads in the direction(s) permitted by the PFAS when in use of at least: (A) 3,600 lbs. (16kN) when certification exists (reference ANSI Z359.1 for certification definition); or (B) 5,000 lbs. (22.2kN) in absence of certification. See Figure 4 for roof anchor loading direction limitations. When more than one roof anchor is installed to a roof structure, the strengths given in (A) or (B) above must be met at each roof anchors installation point independently. **EXAMPLE:** If two roof anchors are installed onto a roof structure, each anchor location must be independently capable of supporting 5,000 lbs. (or 3,600 lbs. with certification).

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

RESTRAINT: Roof anchors installed for restraint applications must be attached to a roof member capable of sustaining a static load of at least 3,000 lbs. applied in any direction permitted by the restraint system when in use. Each roof anchor installation must be independently capable of sustaining this load.

3.0 OPERATION AND USE

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

WARNING: Do not use this system if you are unable to tolerate the impact of a fall arrest. Age and fitness can seriously affect your ability to withstand a fall. Pregnant women and minors must not use this equipment.

3.1 BEFORE INSTALLATION of this equipment, carefully inspect it to assure it is in serviceable condition. Check for missing or damaged parts, see Figure 1. Legs of the metal base should be flat and free of tears or corrosion. Rivets

should be tight and securely clinched. Check for installation nails (20 x 16d nails) or screws (12 x 1/4-14 Teks screws). Refer to section 5.0 for further inspection details. Do not use if inspection reveals an unsafe condition. **NOTE:** The Hinged Roof Anchor is designed as a multi-use anchor. Teks screws may not be reused..

3.2 PLAN your fall arrest or restraint system before starting your work. Take into consider all factors affecting your safety at any time during use. The following list gives some important points to consider when planning your system:

A. ANCHORAGE: Select an anchorage point that is rigid and capable of supporting the required loads. See section 2.4. Locate the roof anchor in accordance with section 3.3.

B. FREE FALL: PFASs must be rigged to limit any free fall to a maximum of 6 feet (OSHA and ANSI Z359.1), restraint systems must be rigged such that no vertical free fall is possible. Avoid working above your anchorage level since an increased free fall distance will result.

C. PERSONAL FALL ARREST SYSTEM REQUIREMENT: PFASs used with this roof anchor must meet applicable OSHA, state, federal, and ANSI requirements. PFASs incorporating a full body harness must be capable of arresting a workers fall with maximum arresting force of no greater than 1,800 lbs. and limit the free fall distance to 6 feet or less. The deceleration distance for PFAS must be 42 inches (1.1m) or less. Reference ANSI Z359.1 and OSHA requirements.

D. RESTRAINT SYSTEMS: Restraint systems must meet applicable state and federal requirements.

E. FALL CLEARANCE: Should a fall occur, there must be sufficient clearance in the fall area to arrest the fall before striking the ground or other objects. The actual clearance required is dependent upon the type of fall arrester connecting subsystem used (energy absorbing lanyard, self retracting lifeline, etc.). Refer to the DBI-SALA instructions for fall clearance information.

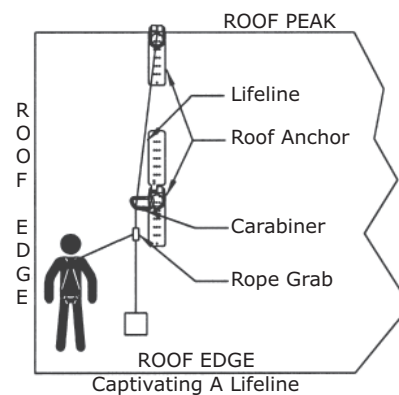
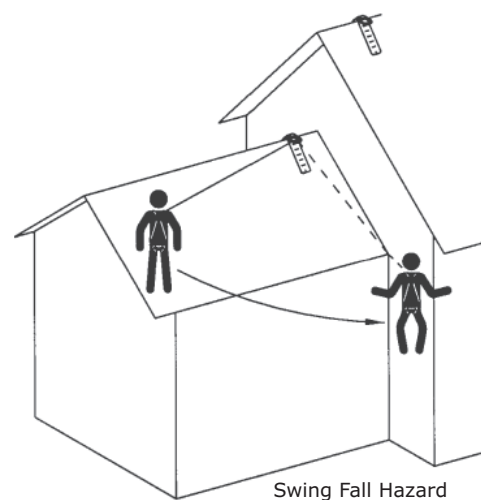
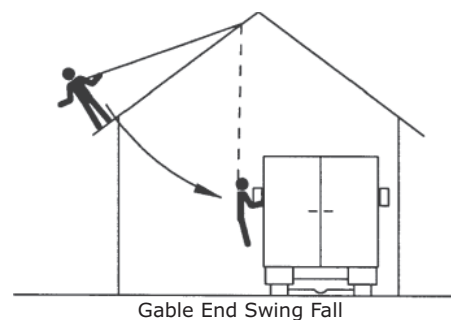
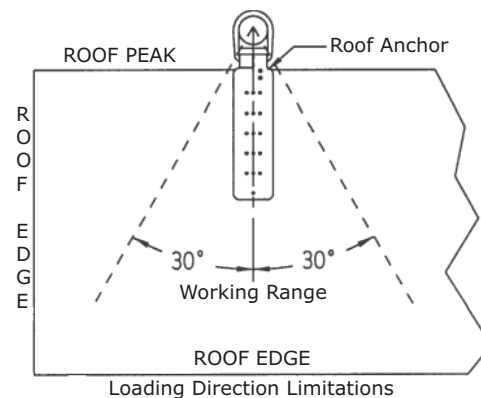
F. SWING FALLS: Swing falls occur when the anchor is not directly above the point where a fall occurs. The force of striking an object while swinging can be great and cause serious injury. Minimize swing falls by working as directly below the anchorage as possible (the worker must be positioned within 30 degrees of the roof anchor), see Figure 4. It is acceptable to captivate a lifeline (i.e. rope grab system) to an anchorage close to the work area with a carabiner, see Figure 4. Do not captivate the lifeline of a self retracting lifeline as this may affect the performance of its internal braking.

G. SHARP EDGES: Avoid working where the connecting subsystem (i.e. shock absorbing lanyard, self retracting lifeline, full body harness, etc.) or other components will be in contact with, or abrade against, unprotected sharp edges. Do not the loop lanyard around small diameter structural members. If working with equipment near sharp edges is unavoidable, protection against cutting must be provided by using a heavy pad or other means over the exposed sharp edge.

H. RESCUE: Should a fall occur, the user (employer) must have a rescue plan and the means at hand to implement it.

I. AFTER A FALL: Any equipment which has been subjected to the force of arresting a fall must be removed from service immediately and destroyed, or contact a factory authorized service center for repair.

Figure 4 -
Swing Fall



3.3 INSTALLATION REQUIREMENTS.

A. ROOF ANCHOR SITE PLAN: Before starting the roof construction, a plan should be established as to where the roof anchors will be installed, and when during the construction process they may be used. The following are guidelines on locating roof anchors:

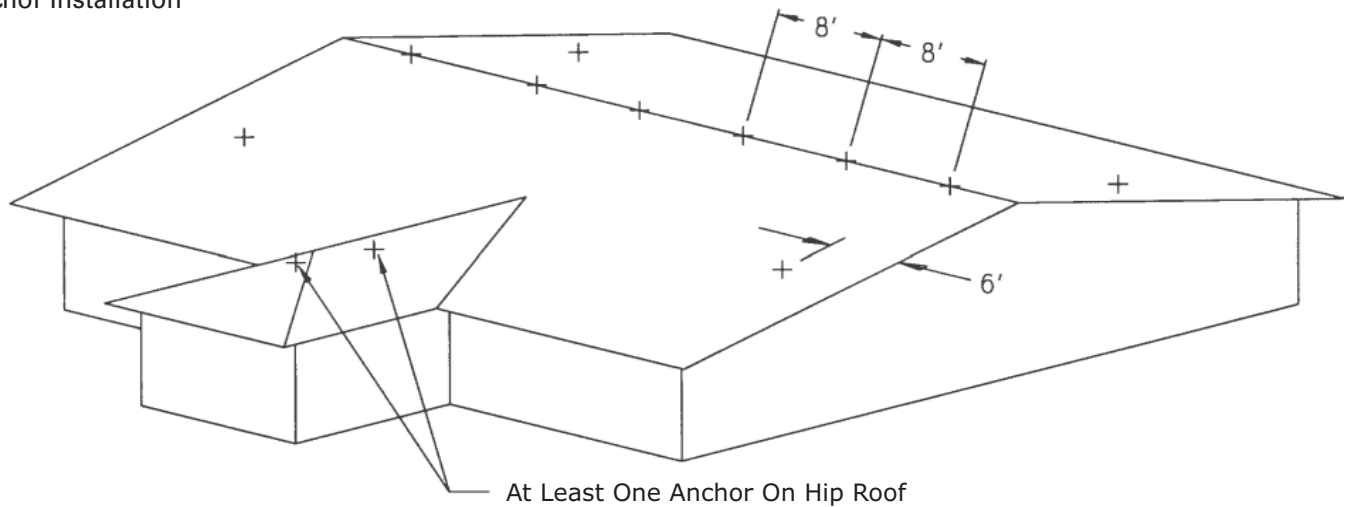
- The roof anchor should be located at the roof peak (when possible) and at least 6 feet from any exposed roof edge. On very small roof areas, locate the roof anchor as far from the roof edge as possible.
- Do not install roof anchors on unsupported roof structures, such as eaves or gable overhangs. Do not install roof anchors on fascia boards.
- Roof anchors should be installed at 8 foot spacings along the roof ridge. Hip roofs require a roof anchor on each hip face.
- On long low pitched roofs, multiple roof anchors should be installed along the gable ends (6 feet from the edge) to reduce swing fall hazards.

Figure 5 shows typical roof anchor locations for various roof configurations.

B. ROOF FRAMING: Roof framing members to which the roof anchors are attached must be in good condition. Members must be free of splits, cracks, large knots, or defects that may weaken the member. Do not attach the roof anchor to rotted or deteriorated wood.

C. FASTENERS: The roof anchor may be secured to the roof using either 16d nails (as supplied) or Teks screws (1/4-14 screws need to be long enough for five threads to be exposed beyond the purlins).

Figure 5 -
Anchor Installation



D. ROOF ANCHOR INSTALLATION: Roof anchors must be installed in accordance with the previously discussed site plan. Site work rules must be followed regarding when an installed roof anchor is ready for use (i.e. after sheathing is in place).

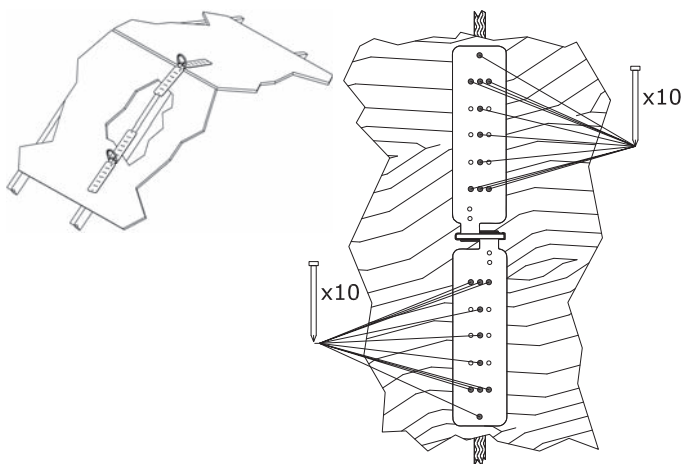
ATTACHING THE ROOF ANCHOR:

Spread the anchor base legs apart to match the surface it will be mounted on, either a roof peak or a flat surface. Position the anchor on the roof such that the 12 nail holes along the center of the legs are over a framing member. Then, push down to minimize any gap between the anchor and the sheathing and nail. Use only 16d nails to install the anchor: 10 per leg into the rafters (6) and sheathing (4). Install all 20 nails. See Figures 6 and 7. See section 5.0 for pre-use inspection.

WARNING: The Hinged Roof Anchor must be positioned on top of previously secured roof sheathing (do not attach directly to rafter or truss member). All 20 nails must be installed. If the roof anchor is not installed properly, it will not hold the rated loads and serious injury or death could occur.

WARNING: Use only 16d nails which have a complete head. Do not use nails from nail guns. Never attach the roof anchor with the legs still together (legs must be spread apart).

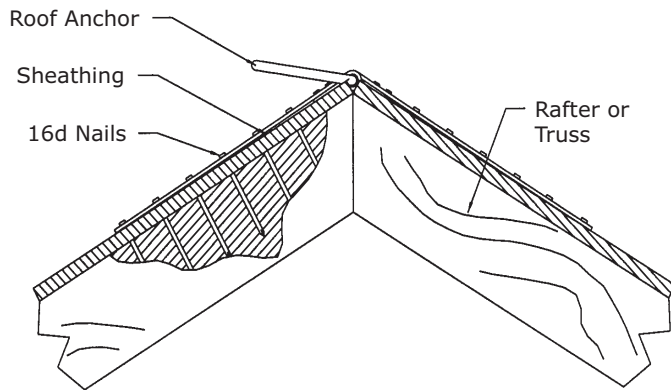
Figure 6 -
Anchor Installation (Nails)



E. STEEL DECKING INSTALLATION: This anchor may be installed on steel decking with a minimum material thickness of 22 gauge (.030 inch) over Z-purlins with a minimum material thickness of 16 gauge (.064 inch). The maximum span between purlins is 6 feet. Twelve 1/4-14 Teks screws are required to fasten the anchor. The screws should be of sufficient length so that at least five threads are exposed beyond the bottom of the purlin. The screws must be located on the outer two of the long rows of holes, through every other hole. Every screw must penetrate the Z-purlin. The holes in the anchor that will be used with the Teks screws must be drilled out to 1/4 inch diameter. See Figure 8. The anchor should not be used as a permanent anchor once the holes have been drilled out because the corrosion protection has been damaged. The anchoring structure needs to meet the requirements of Section 2.4.

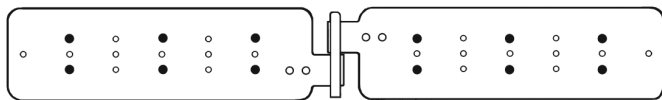
WARNING: Anchors that have been drilled out may not be reused. After use, the anchor must be removed from service and destroyed.

Figure 7 -
Anchor Installation



F. REMOVAL OF ROOF ANCHOR: Remove the roof anchor prior to shingling the area with the anchor. To remove it, pry off the anchor from the roof. If the anchors are screwed down, the screws should be removed rather than just prying the anchor from the roof.

Figure 8 -
Anchor Holes



When using Tek screws, only drill out the darkened holes to 1/4 in. diameter

WARNING: The Hinged Roof Anchor is designed as a multi-use anchor. New 16d nails must be used for every reinstallation.

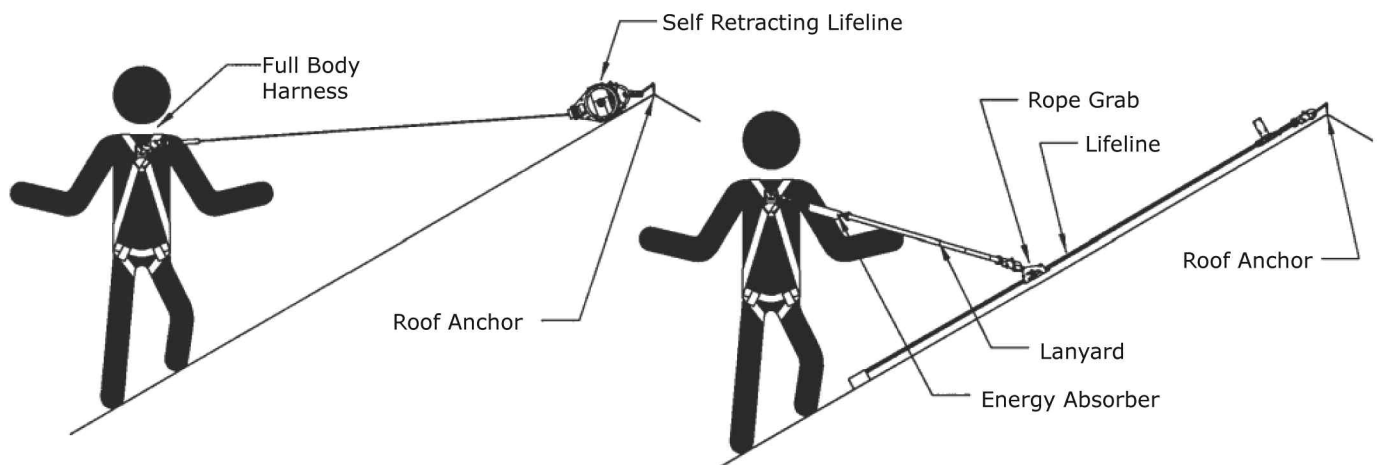
3.4 CONNECTING TO THE ROOF ANCHOR:

Connection to the installed roof anchor may be made using a self locking snap hook or self locking and self closing carabiner only. Do not use a knot to connect a lifeline to the roof anchor. Do not pass the lanyard or lifeline through the roof anchor D-ring and hook back into the lanyard or lifeline. When connecting, make sure the connections are fully closed and locked. Figure 9 illustrates the proper connection of a typical fall arrest or restraint equipment to the roof anchor. When using an energy absorbing lanyard, connect the energy absorber "pack" end to the harness. When using a self retracting lifeline, make sure the device is properly positioned so that the retraction is not hindered. Always protect the lifeline/lanyard from abrading against sharp or abrasive surfaces on the roof. Make sure all the connections are compatible in size, shape, and strength. Never connect more than one personal protective system to any single roof anchor at a time.

WARNING: Read and follow manufacturer's instructions for associated equipment (i.e. full body harness, shock absorbing lanyard, self retracting lifeline, etc.) used in your personal fall arrest system.

WARNING: For special (Custom) versions of this product, follow the instructions herein. If enclosed, see attached supplement for additional instructions to be followed when using a customized product.

Figure 9 -
Making Connections



4.0 TRAINING

4.1 It is the responsibility of all users of this equipment to understand these instructions, and to be trained in the correct installation, use, and maintenance of this equipment. These individuals must be aware of the consequences of improper installation or use of this equipment. This user manual is not a substitute for a comprehensive training program. Training must be provided on a periodic basis to ensure proficiency of the users.

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

5.0 INSPECTION

5.1 FREQUENCY:

A. Before each use, visually inspect the equipment per steps listed in sections 5.2 and 5.3.

B. The roof anchor must be inspected by a competent person other than the user at least annually. See sections 5.2 and 5.3 for guidelines. Record the results of each formal inspection in the inspection log found in section 9.0. **NOTE:** Cal/OSHA requires personal fall arrest systems be inspected prior to each use for wear, damage, and defects and inspected by a competent person¹ at least twice a year, in accordance with the manufacturer's recommendations, with inspection dates documented.

IMPORTANT: If this equipment has been subjected to forces resulting from the arrest of a fall, it must be immediately removed from service and destroyed or returned to the manufacturer for possible repair. See section 5.2.

5.2 INSPECTION STEPS:

Step 1. Inspect the Roof Anchor for physical damage. Look carefully for any signs of cracks, dents, or deformities in the metal. Check for bending, the roof anchor legs should be flat. Rivets should be securely attached and fully clinched (not pulling through hole).

Step 2. Inspect the Roof Anchor for signs of excessive corrosion.

Step 3. Ensure the condition of the roof anchor will support the Roof Anchor loads, see section 2.4. An anchor connected to rotten or deteriorated wood should not be used.

Step 4: Ensure the Roof Anchor is still securely attached. If loose, do not use.

Step 5: Inspect each system component or subsystem per associated manufacturer's instructions.

Step 6: Record the inspection date and results on the inspection log. See section 9.0.

5.3 If inspection reveals a defective condition, remove unit from service immediately and destroy, or contact a factory authorized service center for repair

NOTE: Only Capital Safety or parties authorized in writing may make repairs to this equipment.

6.0 MAINTENANCE, SERVICE, AND STORAGE

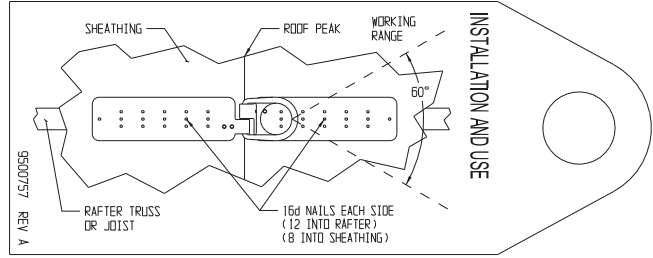
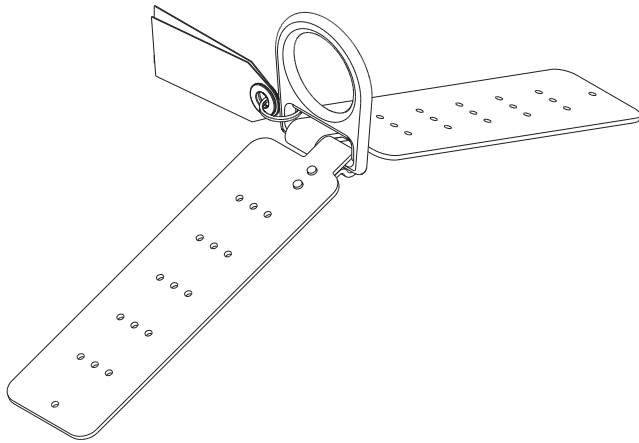
6.1 No scheduled maintenance is required. If you have any questions concerning the condition of your Roof Anchor, or have any doubt about putting it into service, contact Capital Safety immediately.

6.2 Additional maintenance and servicing procedures (i.e. replacement parts) must be completed by a factory authorized service center. Authorization must be in writing.

7.0 SPECIFICATIONS

Material:	Forged alloy D-ring and 1/8 in. thick steel base
Minimum Breaking Strength:	3,600 lbs. when loaded within the loading direction limitations as shown in Figure 4.
Weight:	1.8 lbs.
Size:	5/8 in. x 4 in. x 17 in
Capacity:	310 lbs. (one person)

1 Competent Person: An individual knowledgeable of a manufacturer's recommendations, instructions and manufactured components who is capable of identifying existing and predictable hazards in the proper selection, use and maintenance of fall protection.



Installation Label

⚠ WARNING

Maximum anchor capacity, 1 person, 310 lbs. Use only with ANSI/OSHA compliant personal fall arrest systems. Anchor must be properly installed to support required loads. For temporary use only. Refer to instructions supplied with anchor for further details. Failure to follow these instructions could result in injury or death. Not intended as a permanently installed anchorage. Remove after use.

Roof Anchor Label - Back

ROOF ANCHOR

ULTRA-SAFE
INC.

MEETS OSHA REQUIREMENTS

MFRD (YR/MO)/LOT NO: MODEL NO:

Roof Anchor Label - Print

INSPECTION AND MAINTENANCE LOG

Serial Number:			
Model Number:			
Date Purchased:		Date of First Use:	

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