

User Instructions

1640001 Adjustable Standing Seam Roof Anchor



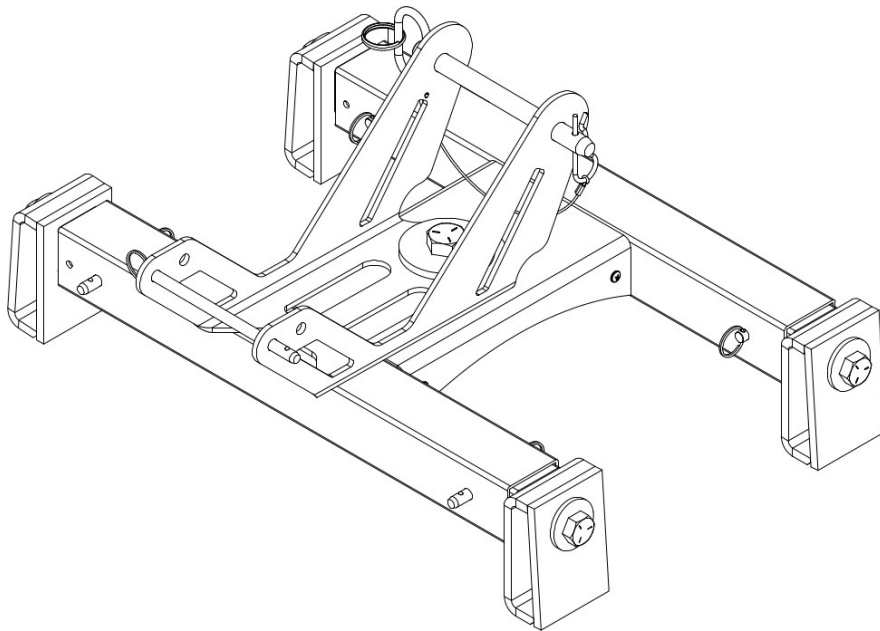
Reliance Industries, LLC



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**Installation, Operation, Inspection and Maintenance
Instructions for the Adjustable Standing Seam Roof Anchor**

Part Number 1640001



Reliance Industries, LLC

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Important Instructions!

These instructions must be kept on file and available for the users reference at **all** times. The users must read and full understand these instructions or have the instructions explained in detail before using this equipment. **Failure to observe these instructions could result in serious injury or death.**

Prior to use, all workers must be trained in the proper use of all systems and equipment.

A Training and Instruction review should be repeated at regular intervals.

A rescue plan must be prepared; the workers must be trained in its use, and rescue equipment must be on hand prior to any use of this Adjustable Standing Seam Roof Anchor system.

Any questions regarding these instructions should be directed to:

Reliance Industries, LLC
Deer Park, TX 77536
Ph. (888) 362-2826
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Important OSHA Regulations Covering the Use of Fall Arrest Anchorage Systems

OSHA 1926.502 (d)(15):

Anchorage used for attachment of personal fall arrest equipment shall be independent of any anchorage being used to support or suspend platforms and capable of supporting at least 5,000-lb (22 kN) per employee attached, or shall be designed, installed, and used as follows:

(d)(15)(i):

as part of a complete personal fall arrest system which maintains a safety factor of at least two; and

(d)(15)(ii):

under the supervision of a qualified person.

OSHA 1926.502 (d)(16)(iii):

Personal fall arrest systems shall be rigged such that an employee can neither free-fall more than 6-ft. nor contact any lower surface.

OSHA 1926.502 (d)(21):

Personal fall arrest systems shall be inspected prior to each use for wear, damage and other deterioration, and defective components shall be removed from service.

OSHA 1926.502 (d)(19):

Personal fall arrest systems and components subjected to impact loading shall be immediately removed from service and shall not be used again for employee protection until inspected and determined by a competent person to be undamaged and suitable for reuse.



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System Description

The Adjustable Standing Seam Roof Anchor is one component of a personal fall arrest system that is designed to attach to steel standing seam roofing panels. Once installed, in accordance with these instructions, an SRL with a Maximum Arrest Force (MAF) of 900 lbs. may be attached to the anchor. This system provides fall protection for a single individual.

The system is used in conjunction with a full-body harness for the worker and a self-retracting lanyard (SRL) with 900-lb. Maximum Arrest Force (MAF) using double-action single-locking snap hooks to attach to the dorsal D-ring of the harness. Shock absorbing lanyards and retractables that do not have “slip-clutch” type internal shock absorbers with a 900 lb. Maximum Arrest Force are **NOT** allowed for use as vertical lifelines to attach to this Adjustable Standing Seam Roof Anchor. Any attachments to the Adjustable Standing Seam Roof Anchor must transfer fall arrest forces to the body through the dorsal d-ring of the full body harness only. Harness side and chest d-rings are not allowable connection points.

Anchorage Points

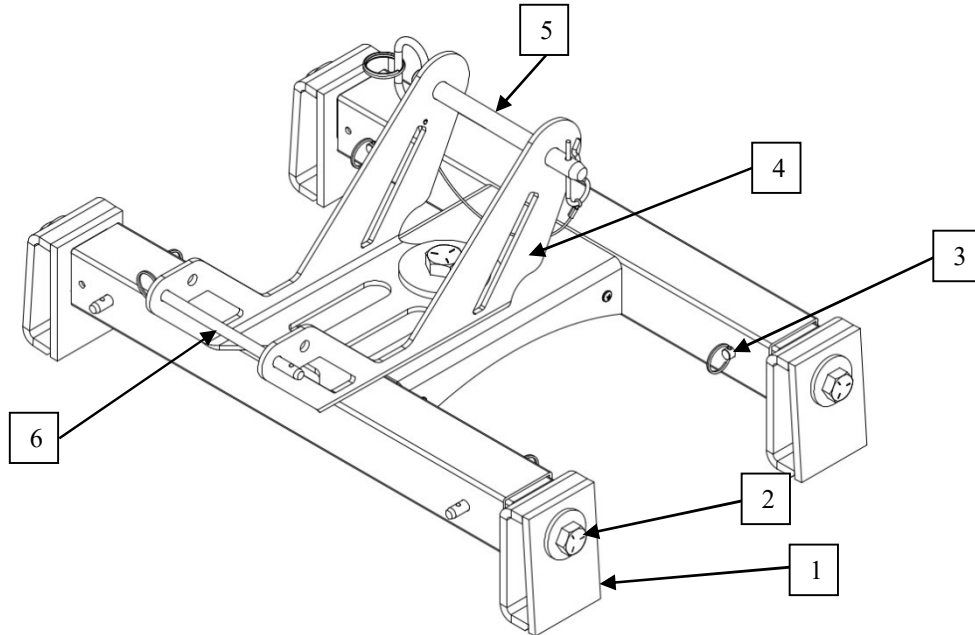
The Adjustable Standing Seam Roof Anchor is designed to be attached to 24 gauge or thicker steel standing seam roof panels. The standing seam must be a single side design. “T” designs and cap designs are not permitted. The standing seam panels must be fully installed and anchored prior to use. The roof to which the Adjustable Standing Seam Roof Anchor is attached must be capable of sustaining a 900 lb. force at the connecting point clamps, with a 2:1 safety factor, as determined by a qualified individual. If there are any questions about the suitability of a particular standing seam roof, please contact Reliance Industries Engineering at 303-424-8650 prior to installation and use.

Materials of Construction

Adjustable Standing Seam Roof Anchor: Zn plated steel

Adjustable Standing Seam Roof Anchor

The Adjustable Standing Seam Roof Anchor consists of the following standard approved and compatible components:



- | | |
|---------------------------------|---------------------------|
| 1. Clamping Foot, 4 ea. | 4. SRL Cradle, 1 ea. |
| 2. Clamp Bolt and Washer, 4 ea. | 5. SRL Anchor Pin, 1 ea. |
| 3. Leg Adjustment Pin, 4 ea. | 6. SRL Locking Pin, 1 ea. |

Figure 1 - Adjustable Standing Seam Roof Anchor Parts Identification

Personal Fall Arrest Equipment Used with Adjustable Standing Seam Roof Anchor

Care should also be used in selecting harnesses for use with the Adjustable Standing Seam Roof Anchor. Harnesses with sewn down back pads can limit as much as 1 ft. of back pad slippage during fall arrest, giving additional clearance for safety. If the system will be used where a worker could encounter a head first free-fall, a non-secured back pad can slide down the webbing to the small of the back, allowing the worker to fall out of the harness through the top by allowing the harness straps to slip over the shoulders. For this reason, we recommend the use of full body, crossover or pullover type harness with sewn down or slip resistant back pads for all installations.

Installation Layout Considerations and Limitations

The Adjustable Standing Seam Roof Anchor is used to provide fall protection while working on or around standing seam metal roofs. The Adjustable Standing Seam Roof Anchor must be installed on standing seam roofs that are at least 24-gauge thickness and are constructed of steel. When installing the system, the unit must be at least two panel widths or 36 inches, whichever is greater, from the roof peak. The unit must also be at least 2 panels away from the edge of the roof. If there are multiple systems to be installed, there must be at least four panel widths between the systems. (See figure 2)

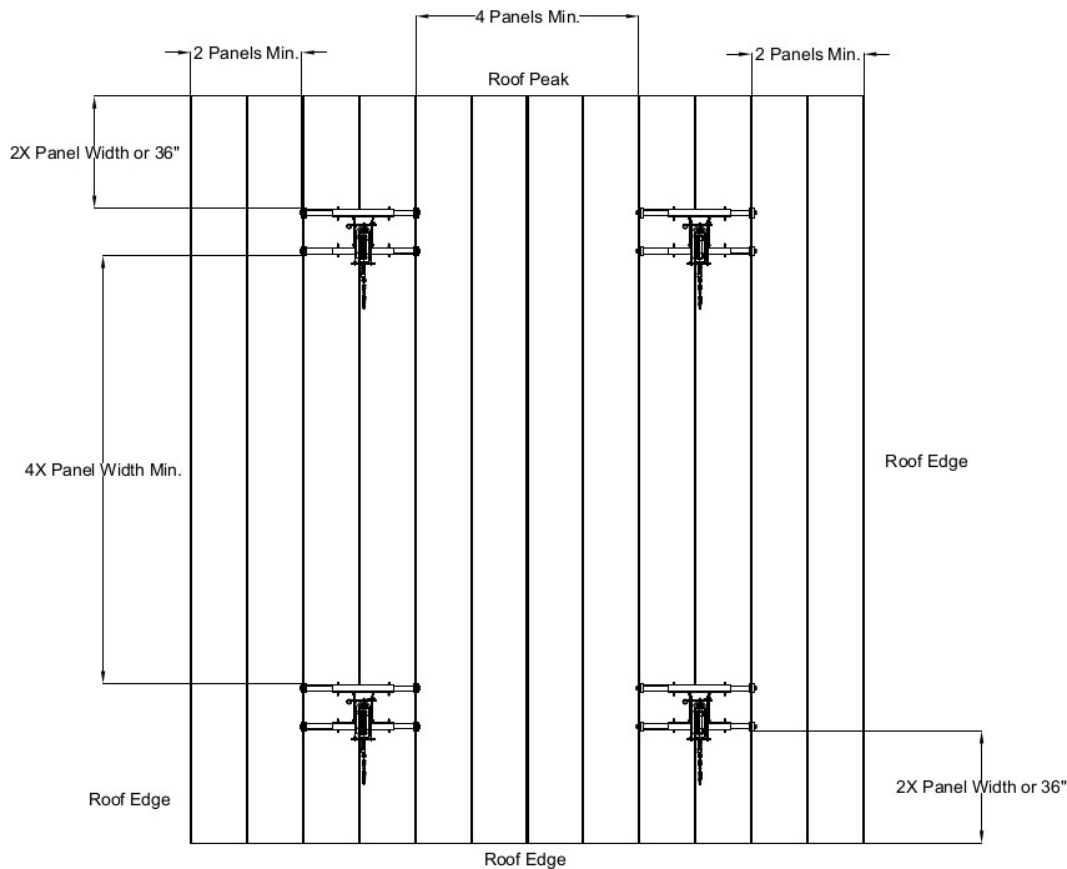


Figure 2 - Adjustable Standing Seam Roof Anchor Installation Layout

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Consideration must be given in the placement of the Adjustable Standing Seam Roof Anchor to factors such as fall clearance and swing falls. Fall clearance must be sufficient to ensure that the user does not strike the ground or other obstruction, please see the user manual for the SRL for complete information. Swing falls can occur when a user is in a position in which a fall can swing the user into an obstruction below the work surface (See figure 3). Do not permit a swing fall to occur if there is any possibility of striking an obstruction. Striking any object during a swing fall can cause serious injury or death.

Due to the circumstances of a fall from a roof, a leading edge SRL is required for use with this system. A leading edge SRL is designed to prevent wire rope failure when the user drops over an unprotected edge. This system has been design to work with Reliance Fall Protection SRL-LE part number 4010020-1, 20' Skyloc II Leading Edge SRL and part number 4010040-1, 40' Skyloc II Leading Edge SRL. Use of any other SRL requires approval from Reliance Fall Protection Engineering.

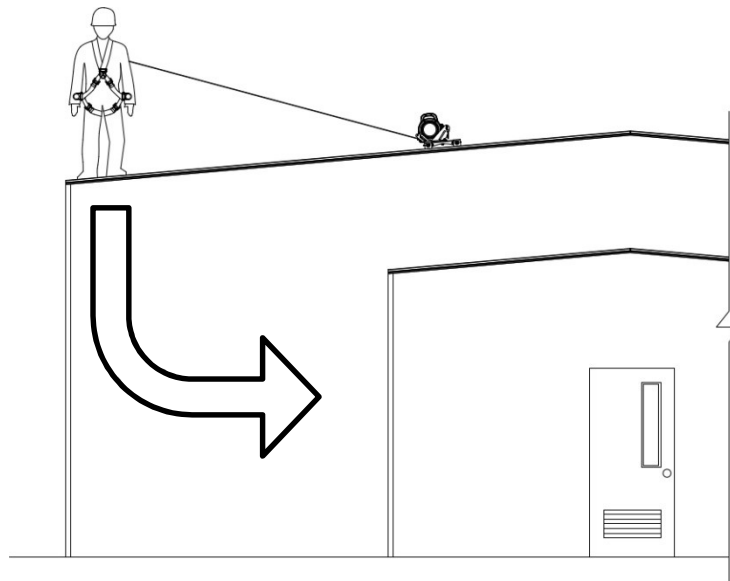


Figure 3 – Swing Fall

Installation

Note: Installation of the Adjustable Standing Seam Roof Anchor must be done under the supervision of a Competent Person. Approved fall protection MUST be worn at all times during installation of the Adjustable Standing Seam Roof Anchor. Connection to the Adjustable Standing Seam Roof Anchor as an

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anchorage point for fall protection is not permitted until full installation has been completed and the Adjustable Standing Seam Roof Anchor has been inspected and certified for use.

Adjustable Standing Seam Roof Anchor Installation Procedures

To Install the Adjustable Standing Seam Roof Anchor

1. Pull the four Leg Adjustment Pins (see figure 4).

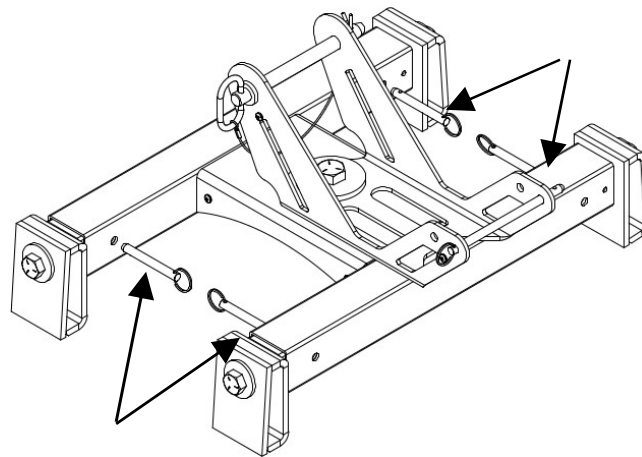


Figure 4 – Leg Adjustment Pins

2. Pull out the leg sections to the approximate location for roof panel spacing, if the seam spacing of a single panel is too small, skip over one seam.
3. Without replacing the Leg Adjustment pins place the feet over the standing seams. Ensure that the feet are oriented so that the flat portion of the foot is in line with the flat part of the seam (see figure 5).

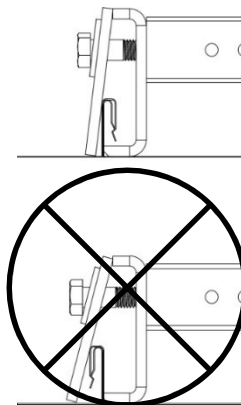


Figure 5 – Foot Orientation

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4. Snug the clamping bolts to prevent movement of the legs.
5. Starting with the main body approximately centered, slide body back and forth until holes in the body line up with the holes in the legs. Note: the hole patterns in the legs are “Vernier Adjustments” allowing the unit to be used on seams with many different widths, but will not necessarily line up in the center of the span (see Figure 6).
6. Reinstall the Leg Adjustment Pins (see Figure 6).
7. Tighten the clamping bolts to 75 ft-lbs (see Figure 6).

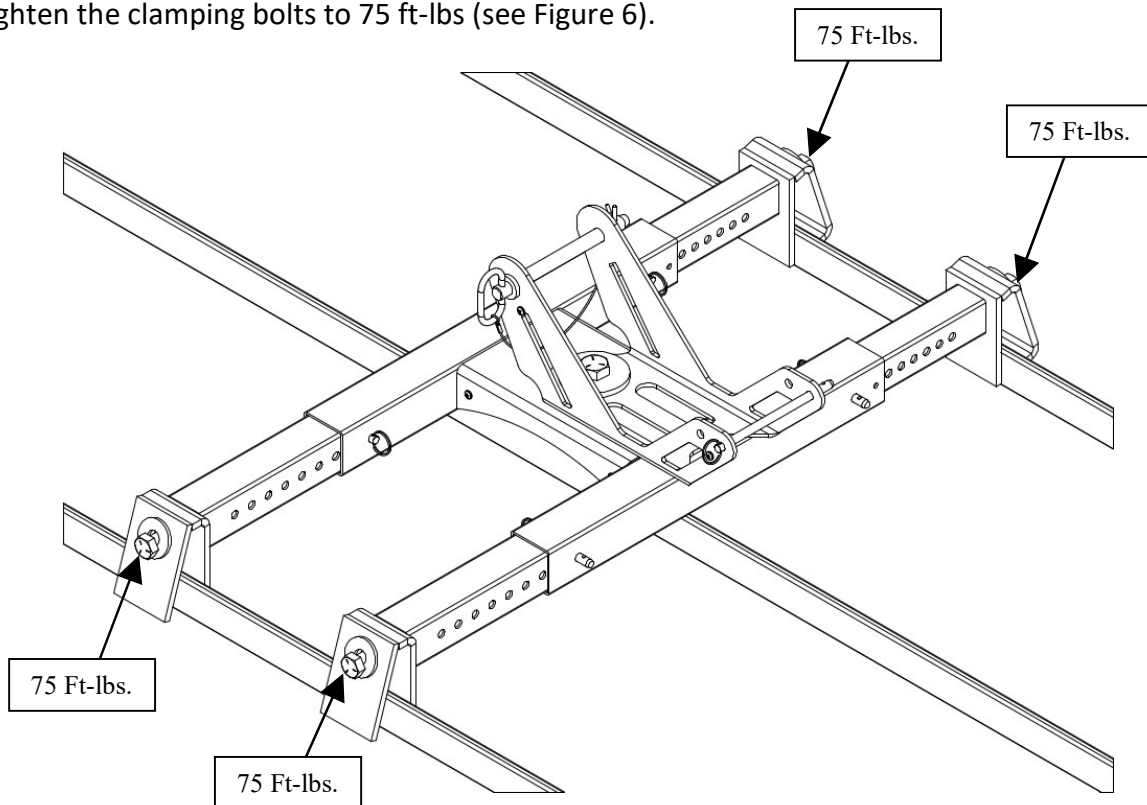


Figure 6 – Tighten Clamp Bolts

8. Remove the SRL Anchor and Locking Pins.
9. Place the SRL into the Adjustable Standing Seam Roof Anchor and install the SRL Anchor pin through the swivel at the top of the SRL (see figure 7) and reinsert the locking cotter pin.

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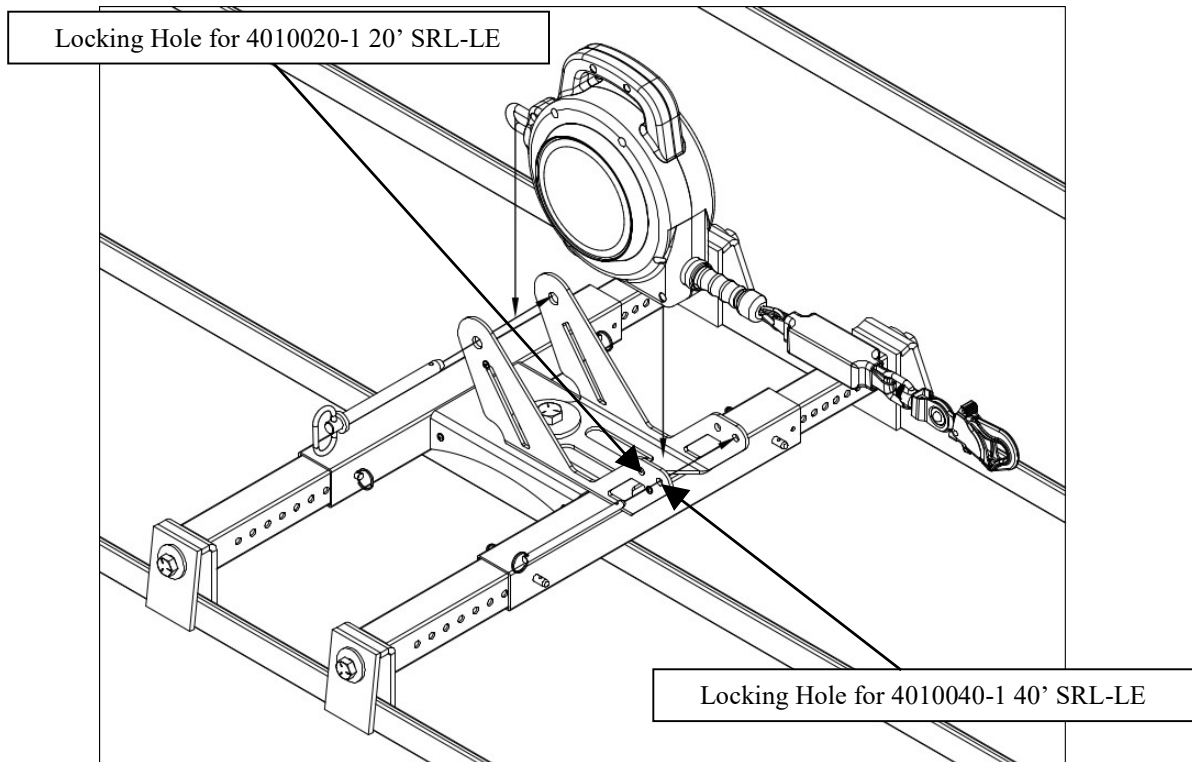


Figure 7 – Install SRL (Model 4010040-1 Shown)

10. Install the SRL Locking Pin in the appropriate hole in the cradle (see figure 7). If using the 20' Skyloc II SRL-LE use the inner hole, if using the 40' Skyloc II SRL-LE use the outer hole.
11. Connect the snap hook on the SRL-LE to the dorsal D-ring on the user's full body harness.

Training

It is the responsibility of the employer to train all workers prior to using this system (per OSHA 1926.503 (a)(1)). The employer shall provide a training program for each employee who might be exposed to fall hazards. The program shall enable each employee to recognize the hazards of falling and shall train each employee in the procedures to be followed in order to minimize these hazards.

The employer shall assure that, as necessary, each employee has been trained by a competent person qualified in the following areas:

- a. OSHA regulations governing the use of ladders and personal fall protection systems.
- b. Ability to recognize potential fall and workplace hazards.



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- c. Method of inspection of safety equipment.
- d. Rescue procedures.
- e. Installation and removal techniques.

Planning for Rescue

Prior to system use, a rescue plan must be prepared, the workers must be trained in its use, and the rescue equipment must be on hand to implement it in case of a fall.

Typical rescue plans include (but are not limited to) the following items:

1. List of equipment that must be readily accessible in the event of an emergency and the names of those workers certified to use or operate that equipment.
2. Emergency contact phone numbers (ambulance, hospital, fire department...) and a means to contact them (cell phone, emergency radio).
3. List of employees on the site, and the specific tasks they will perform to effect the rescue.

Qualified Persons trained in fall protection planning and implementation should only undertake the design and installation of personal fall arrest systems. It is of the utmost importance to identify a method of rescue from deployed fall arrest systems before a fall has occurred, and have the means to affect the rescue on hand. In some situations it may be possible to use the fall arrest anchorage itself as an anchorage capable of use for rescue. However, in some situations, it is possible that access to the fallen individual will be blocked by other structure making it impossible to be used as a suitable anchorage for rescue. For this reason, always install rescue anchorages to rigid structures for attaching hoists or other retrieval equipment at locations that can be reached by rescue personnel. Note whether rescue must be up or down. If you rescue upward, anchorages must be high enough to raise the fallen worker above the walking/working surface. In case a worker has been injured or is unconscious, always consider the evacuation method and path to be used after the worker has been retrieved.

Contact Reliance Engineering for help in identifying possible methods of rescue and rescue planning.

Inspection

Prior to each use, the worker must inspect both the Adjustable Standing Seam Roof Anchor and the SRL for any physical damage, wear, corrosion, or malfunctioning parts. If an inspection reveals a problem or unsafe condition, remove the entire system from service until it can be re-certified by a competent person.



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The Adjustable Standing Seam Roof Anchor should be examined to ensure that it is not bent and that it is installed properly onto the standing seam roof. It must be secured into place using the four Clamp Bolts as shown in Fig. 6. The four clamp bolts must be checked daily to ensure that they are at 75 ft-lbs. of torque.

The SRL should be certified for use by a competent person trained on the inspection of self-retracting lifelines. Please refer to the manual that accompanied the SRL for specific inspection procedures.

Servicing

A qualified person trained in the inspection and servicing of system components must carry out servicing of this system. The company's safety officer should maintain a record log of all servicing and inspection dates. The system and all components must be withdrawn from service if subjected to fall arrest forces. Those components may be returned to service only after being re-certified by a qualified person. Only original Reliance equipment replacement parts are approved for use in this system. Contact Reliance Engineering with questions and when in need of assistance.

Warnings and Limitations

Proper care should always be taken to visually scan the work area prior to use. Remove any obstruction, debris, and other materials from, and beneath the work area that could cause injuries or interfere with the operation of this system. Be cautious of swing fall hazards if working horizontally to the side of the Adjustable Standing Seam Roof Anchor.

Users should be familiar with pertinent regulations governing the use of this system and its components. Only trained and competent personnel should install and supervise the use of this system.

Use only Reliance supplied or qualified compatible components.

If you have any questions regarding the correct installation or use of this product DO NOT USE. Contact Reliance Engineering at Ph. (303) 424-8650 or Fax (303) 424-8670.

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Inspection Log for the Adjustable Standing Seam Roof Anchor

Company: _____ Location: _____ Date: _____
Job Site: _____ Log No.: _____ System No.: _____

Describe non-conforming conditions in the boxes below:

Inspection Criteria	Missing Parts	Labels Readable	Corrosion	Deformed Parts	Cracked Parts/ Broken wires	Excessive Loading
SRL Cradle not bent or deformed?						
Clamp Feet not bent or deformed?						
Clamp Bolts tightened to 75 ft-lbs.?						
SRL anchor and locking pin in place and secured?						
SRL functioning/locking up?						
Leg pins in place and secured?						
Unit is clean and free of corrosion?						

Has a Rescue Plan been prepared? _____

Is Rescue Equipment on hand? _____

Have workers been trained in the Rescue Procedures and been given a copy of the Rescue Plan? _____