

**GENERAL SYSTEM SELECTION CRITERIA:** Selection of fall protection shall be made by a Competent Person. All fall protection equipment shall be purchased new and unused.

The equipment is designed for use as a part of a personal fall protection system. Components shall not be used for any other operation other than that which it has been designed and approved.

Fall Arrest Systems shall be designed to comply with OSHA or applicable state regulatory limitations. Systems must be used in a compliant manner.

Fall Restraint systems shall be designed by a Qualified Person, and must be installed and used under the supervision of a competent person.

Consult a doctor if there is any reason to doubt a user's ability to withstand and safely absorb fall arrest forces. Age, fitness, and health conditions can seriously affect the worker should a fall occur. Pregnant women and minors should not use this equipment.



## Arco Pod

### **DO NOT THROW AWAY THESE INSTRUCTIONS! READ AND UNDERSTAND BEFORE USING EQUIPMENT!**

This manual should be read and understood in its entirety, and used as part of a training program as required by OSHA or any applicable state regulatory agency.

This and any other included instructions must be provided to the users of the equipment. The user must understand the proper equipment use and limitations. User must keep a copy of these instructions for reference and training.

This product meets all applicable OSHA and ANSI standards for fall protection.

### **WARNING!**

#### **DO NOT:**

- **Do not alter or misuse this equipment.**
- **Do not use combinations of components or subsystems that may affect or interfere with the safe, compatible function of each other.**
- **Do not expose the equipment to chemicals which may produce a harmful effect or degrade the equipment. Consult manufacturer in cases where doubt exists.**
- **Do not use the equipment around moving machinery or electrical hazards unless specifically designed for such use.**
- **Do not use the equipment around sharp edges or abrasive surfaces unless intended for such use.**

**TRAINING REQUIREMENTS:** 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. Relevant Federal, State, and local regulatory requirements, procedures, and standards shall also be a part of training.

The employer shall ensure that each employee has been trained, as necessary, by a Competent or Qualified Person in the nature of fall hazards in the work area, the correct erecting, maintaining, disassembling, and inspection of the fall protection systems being used, and the use of personal fall arrest systems.

**RESCUE PLAN:** The user is required to have a rescue plan and the means at hand to implement it when using the equipment. The plan shall be project specific. Employees shall be trained in self-rescue or alternate means shall be provided for prompt rescue in the event of a fall.

**IF EQUIPMENT IS SUBJECTED TO A FALL:** Remove the equipment from service immediately if it has been subjected to the forces of a fall arrest. Contact your distributor or Guardian about policies regarding replacement of Guardian components involved in a fall.

#### **INSPECTION:**

- Only the manufacturer of this equipment or persons or entities authorized in writing by the manufacturer shall make repairs to fall protection equipment.
- Formal inspections shall be made by either a Competent or Qualified Person on at least a semi-annual basis.

#### **PRIOR TO EACH USE:**

- Fall protection equipment shall be inspected by the user for defects, damage, or deterioration.
- Any suspected defective equipment shall be removed from service.
- If the manufacturer's label is not legible or is missing, the equipment shall be removed from service. Fall protection equipment shall be removed from service upon evidence of defects, damage, or deterioration, or upon expiration of the manufacturer's specified service limits, whichever comes first.

## OPERATION AND USE WITH SELF RETRACTING LIFELINES:

### Setting up the tripod:

- Step 1:** Place the collapsed tripod on the floor with the feet on the ground. Remove the detent pins from the top of the tripod as shown in Fig. A.
- Step 2:** Fully spread the legs and then replace the pins indicated in Fig. B. to secure the legs in the open position.
- Step 3:** Remove all of the locking pins in Fig. B. from the adjustable legs. Resecure the pins in the tripod legs in the fully extended position as shown in Fig. C.

\*\*This system is much easier to install with two workers. In the case that you are setting up by yourself, lay the tripod on its side to set up.

Fig. A.

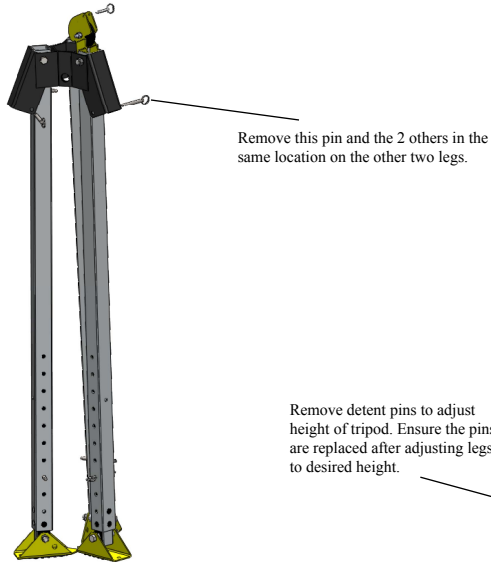
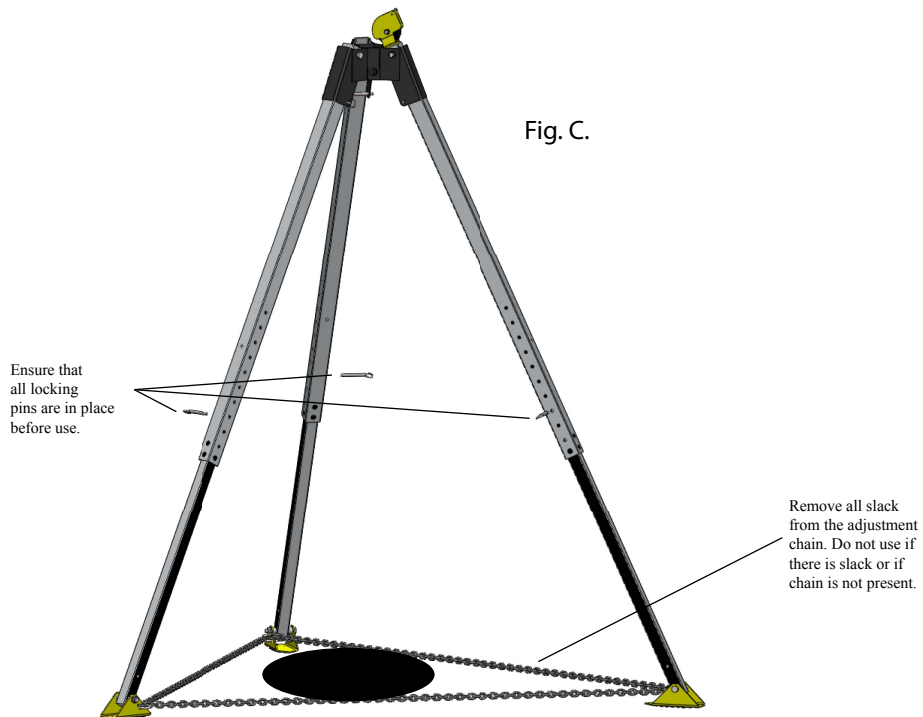


Fig. B.



- Step 4:** Place the tripod over the entry point. Adjust the tripod as necessary by removing the pin (Fig. C) in one leg at a time. Adjust each leg so the tripod sits level above your entry point. Ensure that all detent pins are reinstalled

Fig. C.



### WARNING!

**Remove all slack from the adjustment chain by loosening the quick connects at the feet of the tripod legs. Do not use the Arco Pod if the chain is not present. Doing so may result in serious injury or even death!**

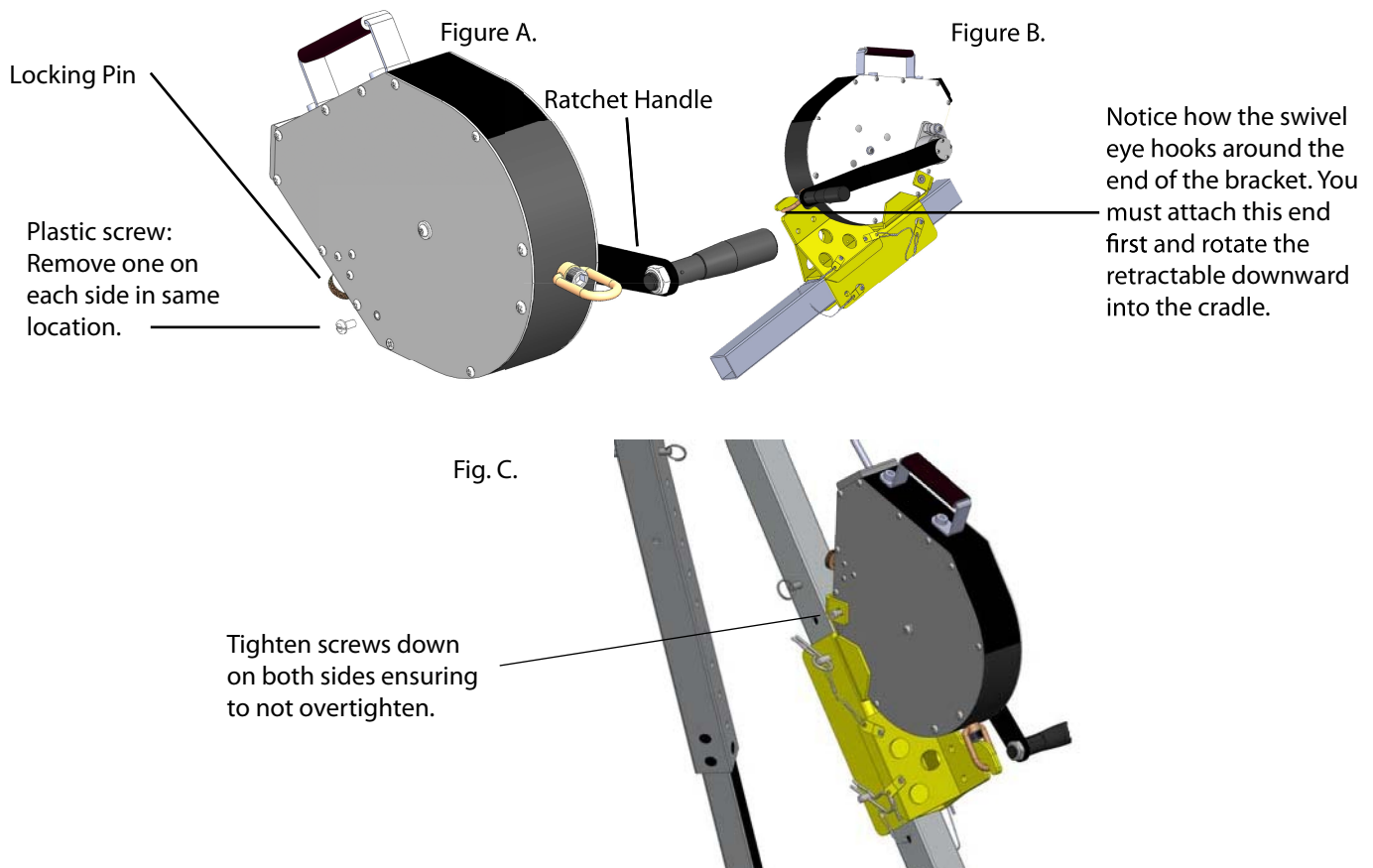
## WARNING!

Consult with your doctor if there is reason to doubt your fitness to safely absorb the shock from a fall arrest. Age, fitness, and health conditions can seriously affect a worker's ability to withstand falls. Pregnant women or minors must not use any Guardian Fall Protection equipment.

### OPERATION AND USE WITH SELF RETRACTING LIFELINES:

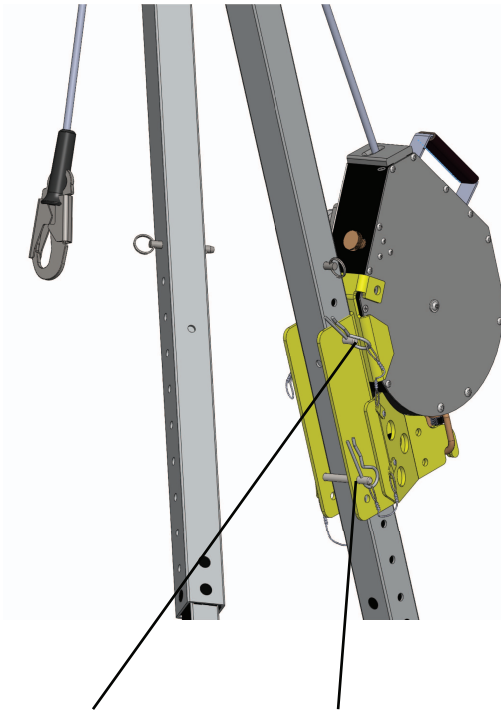
#### Installation of Guardian 3-WAY Retractable unit:

- Step 1:** Attach the 3-WAY SRL to the 3-WAY Tripod Bracket by first removing the two plastic screws from the SRL. Then slide the swivel eye into the hook on the bracket and then slide the 3-WAY SRL into the bracket cradle.
- Step 2:** Check to insure that the crank handle on the 3-WAY SRL has free range of motion and does not interfere with any other object.
- Step 3:** Check that the SRL operates smoothly in both directions.
- **To Lower the Cable:** Pull (Figure A.) outward on the locking pin and hold. Rotate the ratchet handle until it slides outward and stops in the engaged position. Release the pin so that it falls into the locking position. Rotate the crank handle in counter clockwise direction. If a fall has been arrested and lowering is required, first crank in the upward, clockwise, direction for one half rotation. Now reverse the direction, counter clockwise, to begin lowering. A minimum of 75lbs is required for lowering.
  - **To Raise the Cable:** Pull outward on the locking pin and hold. Rotate the ratchet handle until it slides outward and stops in the engaged position. Release the pin so that it falls into the locking position. Rotate the crank handle clockwise to crank the cable into the housing. Note: to engage the recovery system, it may be necessary to rotate the crank slightly. **\*\*CHECK THAT THE RATCHET HANDLE ENGAGES AND OPERATES THE WINCH CORRECTLY.**
- Step 4:** Once the 3-WAY is cradled in the bracket, insert the two screws that are supplied with the bracket. These screws fasten into the standoff in the SRL. **DO NOT USE THE PLASTIC SCREWS.** These holes are located under the plastic screws on the handle side of the retractable. Do not overtighten the screws.



**Step 5:** Attach the 3-WAY SRL and Bracket assembly to the tripod leg that contains the pulley on the top of the tripod. Only install the 3-WAY BRACKET to the outside of the leg. There are two options for installing the 3-WAY SRL to the retractable leg based on how high you have adjusted the tripod. Installation #1 shows the 3-WAY bracket attached to the larger diameter of the tripod leg. Note the pin configuration. This is used when the tripod is at full extension. Installation #2 shows the tripod at a lowered height. These different attachment points will allow you to adjust the 3-WAY SRL to your desired height for handle clearance when lifting a worker. **Take note of where the pins attach to the tripod leg. When pinning the bracket against the smaller diameter leg, you must use the through hole which is closest to the leg to secure the bracket.**

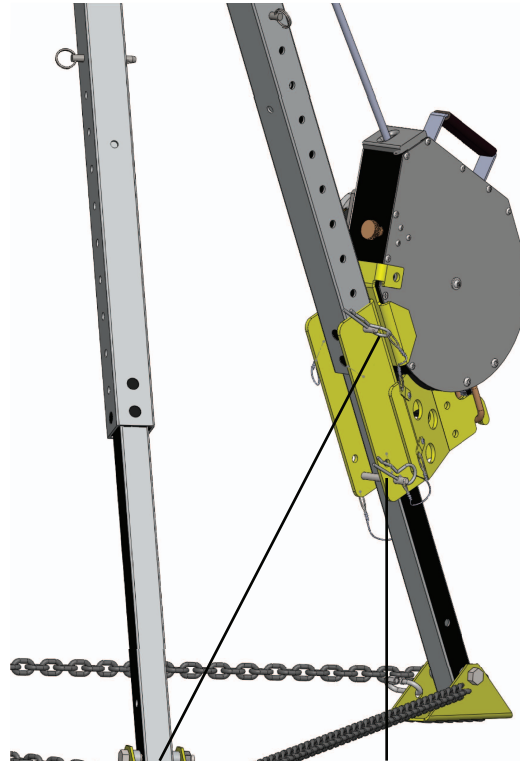
Installation #1



Pin #1

Pin #2

Installation #2



Pin #1

Pin #2

**Step 6:** Run the snaphook from the SRL up and over the pulley. You will need to remove the detent pin, shown in Figure A, over the pulley to maneuver the cable through the pulley and down through the center opening as shown in Figure A. Once cable is run over the pulley, replace the detent pin. Your assembled unit should look like Figure B.

Fig. A.

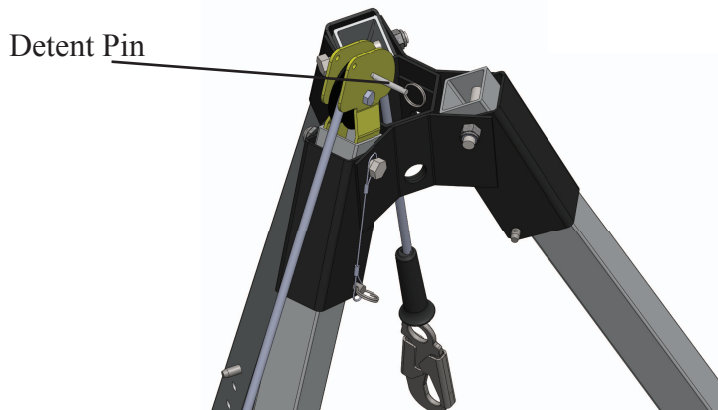


Fig. B.

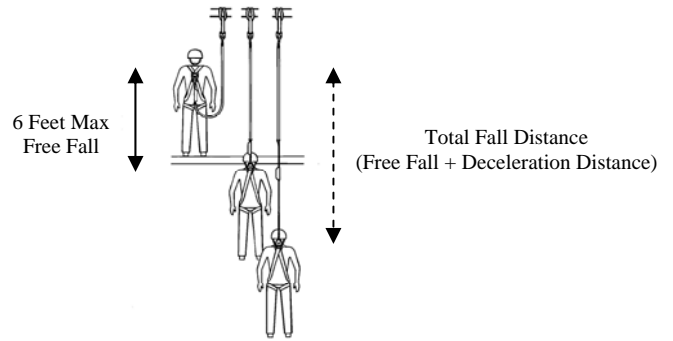


**Step 7:** Attach the snaphook end of the retractable to the dorsal D-Ring of your harness. Do not connect to any other connection point on the harness unless that attachment point is rated for fall arrest.

- **Capacity:** The SRL is for use by one person with a combined weight (person, clothing, tools, etc.) of 75lbs. minimum and 310lbs. maximum.

**Consider When Calculating Distance:**

- Deceleration Distance
- Movement of harness attachment element (D-ring)
- Free Fall Distance
- Worker Height (how tall the worker is could affect the free fall distance)
- Elevation of Anchorage Connector
- Connecting Subsystems Length

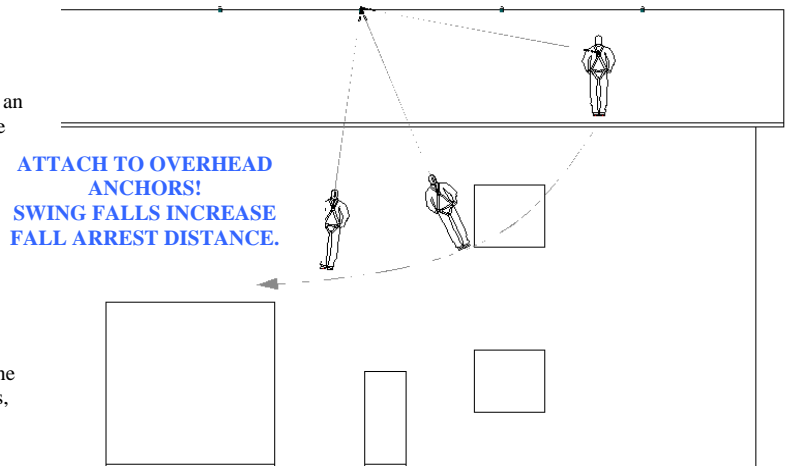


**APPLICABLE STANDARDS:**

Refer to potential applicable standards. Standards might include OSHA regulations depending on the type of work, and also might include state regulations if applicable. Consult regulatory agencies for more information on personal fall arrest systems and associated components. This product is designed to comply with OSHA and ANSI Z359.1 standards when used properly, and in accordance with manufacturer’s instructions.

**LIMITATIONS CONTINUED:**

- **Swing Falls:** Swing falls occur when the anchorage point is not directly above the point where a fall occurs. The force of striking an object in a swing fall may cause serious injury or death. Minimize the risk of swing falls by working as close to the anchorage point as possible. Do not permit a swing fall if injury could occur. **Swing falls will significantly increase the clearance required when a self retracting lifeline or other variable length connecting system is used.**
- **Potential Environmental Hazards:** Use of fall protection equipment in areas with environmental hazards may require additional precautions to prevent injury to the user or damage to the equipment. Hazards may include but are not limited to: chemicals, corrosive environments, high voltage power lines, gases, moving machinery, and sharp edges.



**SYSTEM REQUIREMENTS:**

- **Compatibility of Components:** Guardian Fall Protection equipment is designed to be used with Guardian approved components. Please contact Guardian if you have a question regarding compatibility. Making substitutions without approval from Guardian Fall Protection may lead to injuries and or death by compromising the safety and reliability of the complete system. A Qualified person can make a determination on compatibility of equipment from different manufacturers. If in doubt, please contact Guardian Fall Protection for clarification.
- **Compatibility of Connectors:** Connectors (D-rings, hooks, carabiners) must be capable of supporting at least 5,000 lbs. (22kN). Do not use equipment that is not compatible. Non-compatible connectors may unintentionally disengage. Self locking snap hooks and carabiners are required by ANSI and OSHA. Connectors must be compatible in size, shape, and strength.
- **Making Connections:** Only use self-locking snap hooks and carabiners with any Guardian Fall Protection equipment. Do not use equipment that is not compatible. If you have any questions on compatibility, please call Guardian Fall Protection at 800.466.6385.

**WARNING!**

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.

## PERSONAL FALL ARREST INFORMATION:

- **Personal Fall Arrest System (PFAS):** Personal fall arrest systems used with this equipment must meet applicable state, federal, OSHA, and ANSI requirements. A full body harness must be worn when this equipment is used as a component of a personal fall arrest system. As required by OSHA, the personal fall arrest system must be capable of arresting the user's fall with a maximum arresting force of 1,800 lbs., and limit the free fall to six feet or less.

### WARNING!

Do not alter or intentionally misuse this equipment. Consult with GFP when using this equipment in combination with components or subsystems other than those described here in this manual and or other information. Use caution when using this equipment around moving machinery, electrical and chemical hazards, and sharp edges.

## LIMITATIONS:

Consider the following application limitations before using this equipment.

- **Capacity:** The Arco Pod is designed to be used by a person that weighs no more than 310lbs. This includes all tools and clothing. All connecting sub systems must limit fall arrest forces to under 1,800lbs.
- **Corrosion:** Leaving the Arco Pod in an environment for long periods of time that could cause corrosion of metal parts is not warranted in any way and must not be done. Use caution when working around corrosive compounds such as ammonia, sewage, fertilizers, seawater or other corrosive environments, may require more frequent inspections or servicing. These increased inspections and servicing are required to ensure corrosive damage is not impacting the performance of the Arco Pod.
- **Chemical Hazards and Heat:** When using a self retracting lifeline in conjunction with the Arco Pod, Extreme caution must be taken when working in or around environments containing acid or caustic chemicals, particularly at elevated temperatures. Damage will be caused to the self retracting lifeline in this environment. Chemical damage is difficult to detect and it is recommended that the lifeline be replaced periodically to ensure safety of the workers. Keep the tripod's exposure to extreme heat and cold to a minimum. Avoid accumulation of slag and other material build up on the Arco Pod.
- **Electrical Hazards:** When using a self retracting lifeline, the possibility of an electric current flowing through the lifeline. Moisture absorbed by the lifeline may provide a path for electrical current to flow, resulting in electrical shock. Use caution where the lifeline or tripod may contact high voltage power lines.
- **Locking Speed:** Extreme caution should be taken when using this device whereas an obstructed fall could occur as well as when someone must perform work in a confined or cramped space. Working in these types of environments could limit the speed at which the locking mechanisms engage. A clear path is required to ensure positive locking of the SRL.

## DESCRIPTION OF PRODUCT:

**ARCO POD:** All Guardian Tripods are meant for use in confined space applications and meet all applicable ANSI and OSHA standards. The Tripods can be used with a standard anchorage connector when connector to the hard point on the tripod. You may also use the tripod in conjunction with a Guardian SRL 3-WAY retrieval unit. The tripods are meant to ease in the entry and exit of confined space environments.

**GUARDIAN ARCO POD:** The Guardian Arco Pod comes with 3 locking pins at the head of the tripod, 3 locking pins located on the legs of the tripod, 1 pin over the pulley and 1 adjustable chain attached to the feet of the tripod. Make sure all of these parts are present before use of the tripod. Contact Guardian for replacement parts.

## PRODUCT APPLICATION INFORMATION:

The SRL 3-WAY is used in a stationary manner. As a stationary device, the SRL would be mounted to an approved fixed anchorage connector directly overhead. Applications of an approved anchor include mounting to the Guardian Fall Protection 04102 Arco-Pod using the 10983 3-WAY Bracket. The 3-WAY retractable can also be attached to a retractable using the static anchor points at the peak of the tripod.'

## INSPECTION OF THE ARCO POD TRIPOD:

### WARNING!

If inspection reveals an unsafe or defective condition, remove the product from service and send product back to Guardian Fall Protection or a GFP authorized service center.

- **Before each use of this equipment inspect it according to the following guidelines:**  
A formal inspection of fall protection products/components must be performed at least every six months by a competent person other than the user. The frequency of formal inspections should be based on conditions of use or exposure.



- **Annually:** ANSI requires a formal inspection of the tripod be completed by a competent person other than the user at least twice a year. More formal and frequent inspections maybe required based upon the severity and environmental conditions of the workplace. Guardian Fall Protection Retractable, unless otherwise marked, are required to be recertified every two years from the *date of first use*.
- **After a Fall Arrest:** Inspect the structure of the tripod. Look over the leg structure for bends or cracks and any other deformation that may have occurred. Look over the hard point if connected with a standard self retracting lifeline. Look over the 3 way bracket and its mounting location for cracking or deformation. Visually inspect all hardware for bending or fatigue. **Inform your onsite safety director that a fall has occurred on this equipment.**

### Inspecting the **ARCO POD:**

- Step 1.** Inspect for missing pins and bent or damaged parts.
- Step 2.** Inspect legs for distortion, cracks or other damage. Ensure the pulley moves freely and is not distorted or cracked in any way.
- Step 3.** The legs must fully extend and collapse in order to use properly
- Step 4.** Ensure the adjustable chain is secured to all feet and all slack is removed by adjusting the quicklinks.
- Step 5.** The labels must be present and fully legible with inspection log information completed.
- Step 6.** Look for signs of corrosion on the entire unit.
- Step 7.** Inspect connecting hooks or carabiners for signs of damage, corrosion or excessive wear.
- Step 8.** Record inspection results in the inspection and maintenance log found in this manual.

## WARNING!

### **CABLE INSPECTION WHEN USING WITH A SELF RETRACTING LIFELINE:**

When inspecting SRL's that utilize cable lifelines, it is critical to look for the following damages and deterioration that will result in malfunction of the unit and potentially unsafe conditions.

- **Crushing:** The cable will often get crushed or bent while being used on a job site. Cable that is crushed or bent will damage the retractable and thus the unit should be immediately taken out of service and returned to Guardian or an authorized repair center.
- **Cutting:** Movement over sharp edges or other objects while the cable is under tension can result in damaged strands and broken wires. If, through inspection of the retractable lifeline prior to each use, it is found to have any broken strands, immediately remove from service and return to Guardian or an authorized repair center.
- **Abrasion:** Abrasion can result from normal wear. Particular attention must be paid to the outer wire strands as they will appear to be flattened and or shiner than other parts of the cable. If, through inspection of the retractable lifeline prior to each use, it is found have damage or deterioration from abrasion, immediately remove from service and return to Guardian or an authorized repair center.
- **Kinking:** Any deformation in the cable whereas the lifeline appears to be bent, requires the retractable to be immediately removed from service and returned to Guardian or an authorized repair center.
- **Corrosion, Arc or Heat Damage:** Extreme caution must be taken to avoid any potential damage as a result of using a retractable within an environment where corrosive compounds, welding, or high heat may exist. Corrosive damage could cause the cable to crack. Welding damage would result in fused wires and thus change the characteristics of the strength with regards to the wire. If the retractable is used in these environments, the retractable lifeline needs to be closely examined for damage. If you have any questions in terms of damage to the retractable or further explanation of the above information is needed, please call 1-800-466-6385.

## WARNING!

### PLAN THE FALL PROTECTION SYSTEM:

Before installation plan your system. Consider all factors that will affect your safety during use of this equipment. The following list gives important points to consider when planning your system:

- Anchorage: Select a rigid anchorage capable of supporting the loads no less than 5,000 lbs. per worker attached.
- Sharp Edges: Avoid working where system components may be in contact with, or abrade against, unprotected sharp edges.
- After a Fall: Components which have been subjected to the forces of arresting a fall must be removed from service and destroyed. Retractable must be returned for servicing to GFP or an authorized repair center.
- Rescue: The employer must have a rescue plan when using this equipment. The employer must have the ability to perform a rescue quickly and safely.

### INSTALLATION REQUIREMENTS:

The following requirements outline the proper installation procedures to be followed.

#### Location:

- Select a location on an appropriate strength anchorage that will provide overall safety and proper loading. The anchorage must be free of deformities or defects that may weaken the structure. The anchorage to which the tripod is placed must be capable of sustaining static loads in the directions applied by the personal fall arrest systems of at least 3,600lbs with certification of a qualified person, or 5,000lbs without certification.
- Do not work above the anchorage point. While using an SRL, always ensure that there is constant tension on the cable. Slack in the cable could result in an increase in fall distance. Move normally as sudden jerky movements will allow the locking mechanism to engage.
- **Do not install in an area where a swing fall hazard potentially could exist. Failure to do so could result in injury or possibly death.**
- **Keep these instructions for reference.**

## WARNING!

If inspection reveals an unsafe or defective condition, remove the Arco Pod from service and send back to Guardian Fall Protection or an authorized repair center.

### TRAINING:

It is the responsibility of the user and the purchaser of this equipment to assure that they are familiar with these instructions, trained in the correct care and use of, and are aware of the operating characteristics, application limits, and the consequences of improper use of this equipment.

## WARNING!

Training should be conducted without exposing anyone to a fall hazard. Training should be repeated on a periodic basis in accordance with your organizations policy and compliance with OSHA regulations.