



DIVERSIFIED
FALL PROTECTION



Overhead Trolley Rail Fall Protection System

USER TRAINING MANUAL

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System Components

Trolley Rail Fall Protection System

WARNING: Prior to using a fall arrest system, personnel must receive instructional training. Training may be by approved video, or may be verbal by a competent person/instructor, or a worker may read this instruction manual. These instructions must be provided in written form to the user. The user must read and understand these instructions, or have them explained to his/her understanding, before using this equipment. During training, the trainee shall not be exposed to a dangerous condition by the trainer. Alterations or misuse of this product or failure to follow instructions may result in serious injury or death.

Trainees shall acknowledge their training by signing and properly noting completion of training in the company's "Registered and Approved User's Log Book". Contractors and temporary employees of the company shall acknowledge receipt of such training by their signature on the "Registered and Approved Temporary Users Log Book". Untrained personnel and visitors shall be restricted from access to the designated protected area, and shall be prevented from using the fall protection system until they receive proper training.

Definition of the System

A Fall Protection System is designed to prevent its user from falling a long distance if he/she should slip while traversing from a protected surface such as a rail car or tanker truck. This system is not capable of preventing slips, trips or falls. While the system does not prevent falls, if properly used, it should minimize the distance a user can fall, and may, in fact, prevent injury.

Regulatory Information

OSHA and MSHA regulations require the use of Fall Protection anywhere a worker is subjected to a fall of four feet or greater.

Requirement for Proper and Thorough Training

It is the responsibility of the purchaser and user of this equipment to ensure that proper training is conducted for all personnel who will use the equipment prior to usage of the system. Annual re-training of users is also required by OSHA.

Using the System During the Familiarization Period

We recommend that you allow at least 2 weeks to get used to the system. This is a sensitive system which is designed to limit a fall, but until you are used to using it, it may lock up on you when you:

- a. Reach down quickly
- b. Hop or jump from car to car
- c. Make quick downward motions

Keep in mind that when the system recognizes a sudden downward pull on the lifeline, it will react as though you are falling. If you move fast, it will stop you suddenly.

Walking with the System: “The Tug and Walk Procedure”

The “Tug and Walk” is the recommended way of walking on a protected surface while using the fall protection system. This system is designed to provide a simple tool for both balance and safety. When you are traversing a protected surface, you may “lock” the retractable lifeline (tug the lifeline until it locks, then maintain tension to keep it locked) and pull the trolley along with you as you walk with the system. When you arrive at your destination, you may release your grip on the lifeline and go about your normal work routine. When you start walking again, resume the tug and walk procedure. This procedure will help you keep your balance and shorten your fall arrest distance if you should fall.

Company Rescue Retrieval Plan

Even though you are not likely to incur a fall of more than two feet with this system, your company must have an established Rescue Retrieval Plan in effect. Consider worst-case scenarios when developing your plan. For example, you must be ready to deal with a victim who is suffering from a heart attack, unconsciousness, or simply someone who has been suspended by a train pulling out from under a worker without warning. If a worker has been hanging for 15 minutes or more, potential serious injury may result from suspension trauma. A fall arrest victim should be carefully monitored for indications of injury. Your safety manager should explain the potential indications of injury. Call for emergency assistance as necessary. Do not use the system unless you are sure prompt and professional help will be available. Familiarize yourself with your company’s Rescue and Retrieval Plan. If you should fall, call for assistance and remain calm until you are rescued.

Recommended Functions and Limitations of the System

This Fall Protection System is to be used only in accordance with the specific instructions contained herein. The system has been designed to be used solely as a fall protection or safety restraint system. This system was not designed nor intended to be used for any other purpose whatsoever. Prior to modifying or using this system for any other purpose, written permission must be obtained in advance from the manufacturer. Some examples of previously approved modifications have included:

1. Adding halogen lamps to the vertical support columns for night loading
2. Running lightweight product line piping along the overhead support trusses for transferring flour into tanker trucks or rail cars
3. Running electrical conduit and air lines over the trusses

Do not use any unapproved equipment with this system. The components selected for this system were specially designed and selected for use as a complete system. Use of equipment which has not been specifically approved for use with this system, including harnesses, may invalidate the system and endanger your safety, and could lead to a serious or fatal injury.

Application Limitations

Corrosion: Do not leave the harness or other components for long periods in environments where corrosion could take place as a result of vapors rising from corrosive materials. Caution should be exercised when working around sewage or fertilizer because of their high concentration of ammonia, which is very corrosive. Use near seawater or other corrosive environments may suggest the need for more frequent inspections or servicing to assure that corrosion is not affecting the life expectancy of the product.

Chemical Hazards: Solutions containing acids, alkalis, or other caustic chemicals, especially at elevated temperatures, may damage harness webbing and other mechanical components of the system. Usage under such conditions may suggest the need for more frequent inspections or servicing to assure damage is not affecting the performance of the product.

Heat: The standard full body harness is not designed for use in high heat or open flame environments. Protection should be provided for the harness when used near welding, metal cutting or similar activities. Hot sparks may burn or damage the harness webbing. High temperature fire resistant harnesses are available from DFP.

Electrical Shock Hazards: Due to the possibility of electric current flowing through the hardware of the fall protection system, including the harness, use extreme caution when working near high voltage lines. Usage of the system should be suspended during electrical storms to prevent electrocution from a lightning strike.

Health Warning: Consult your doctor if there is any reason to doubt your fitness to safely absorb the shock from a fall arrest. Age and fitness significantly affect a worker's ability to withstand fall arrest forces. Pregnant women and children must not use these devices.

Washing Down The System

If the system is excessively dirty, it may be hosed down or pressure washed if necessary with a water-soluble mild soap and water solution. Because the finish is covered by the manufacturers' warranty, use of a stronger cleaning agent requires prior written approval from Diversified Fall Protection.

Annual Inspection

Diversified Fall Protection offers an annual inspection program, in which our trained inspectors will carefully go over the entire system. Call DFP at (844) 958-1195 or scan code below to arrange for an inspection.



Safety Equipment Used

The Full Body Safety Harness

Engineered Full Body Safety Harnesses are the only style approved for use on a fall protection system. Typically weighing less than three pounds, the Safety Harness has a back-mounted D-Ring, which is used to “hook-up” to the lifeline. Only the back D-Ring (located between the shoulder blades) attachment may be used to attach a user to a fall protection system. Some general purpose Safety Harnesses include D-Rings located elsewhere on the harness--they may not be used to attach to a fall protection system.

The Harness includes several quick-release clamps and several tensioning adjustments to fit various body shapes and sizes. Proper adjustment of the Harness is essential to your safety. Refer to the instructions supplied with your specific fall arrest harness.

Prior to usage, the Full Body Harness must be properly adjusted to fit the user’s body size and shape, therefore it is recommended that each user have his/her own personal harness, especially if frequent usage is required. The Harness must be visually inspected before each use. Replace the Harness immediately if sewn threads or webbing material show any excessive wear, fraying, burns, cuts, tears or chemical contamination.

The harness should be kept clean and free of contaminants. Dirt, grime, grease and other contaminants may cause premature failure of the harness. The harness may be washed in a solution of water and a mild detergent. Do not dry with forced hot air, Allow to air dry. The harness should be stored in a cool, dry, clean environment out of direct sunlight. Excessive exposure to ultraviolet light could cause premature failure of the webbing or sewn threads. Avoid storage around chemical vapors.



Donning and Fitting The Harness

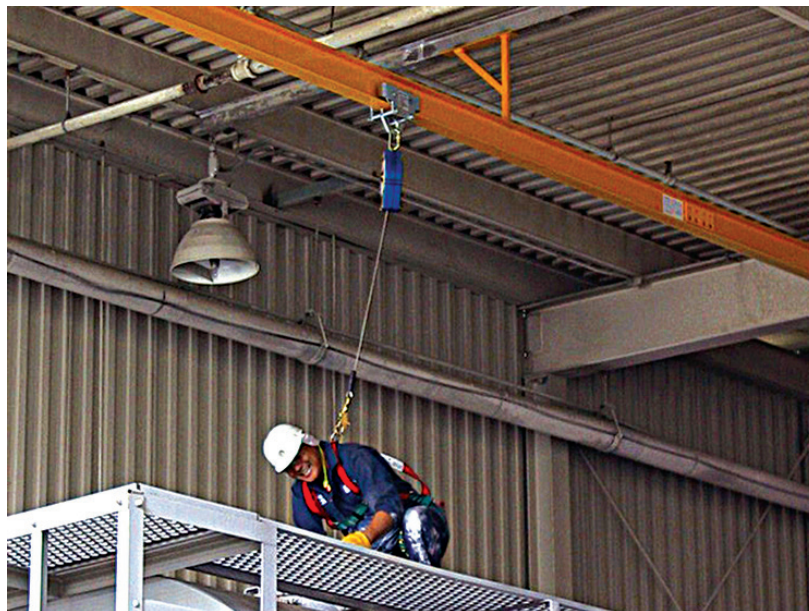
Step 1: Locate the back D-Ring, and lift up the harness by the D-Ring. Ensure the straps are not twisted.

Step 2: Grasp the shoulder straps and slip the harness onto one arm. The back mounted D-Ring should now be located on the rear of the back between the shoulder blades. Make sure the straps are not tangled.

Step 3: Slip your remaining arm into the harness and position the shoulder straps on top of the shoulder. Insert and attach the front clamps.

Step 4: Reach between the legs and grasp the leg strap on your left side. Bring strap up between legs and connect the clamps. The legs should be encompassed with enough tension to ensure that the user is safely attached, with enough play in the adjustment to ensure walking and moving comfort. Now connect the right leg strap in the same manner.

Step 5: Snugly adjust the shoulder and chest strap tightness to fit the user. If adjusted too tight, the straps will cause the user to experience discomfort and fatigue. If too loose, a dangerous hazard can result from a fall arrest, causing a severe pinching between the legs. Use common sense when making these adjustments. Comfort and safety are both important.



The Self-Retracting Lifeline (“SRL”)

The Lifeline provides a vertical lifeline for fall-arrest or restraint.

The Back Mounted, Shoulder Area D-Ring on the Safety Harness is the only location on the Harness approved for attachment of the Locking Clamp of the Lanyard. The Clamp must be fully closed and locked on the Harness D-Ring prior to use of the fall protection system.

Caution: The SRL contains a braking mechanism which is very sensitive and may be activated by unintentional sudden rapid movement. The retractable lifeline may “lock up” unexpectedly whenever the speed of a users’ sudden rapid movement exceeds four and a half (4’-6”) feet/second, as the system may be “fooled” into arresting a movement which it recognizes as a fall arrest. When using a system with a self-retracting lifeline, use caution when moving suddenly downward or laterally.

Any self-retracting lifeline (SRL) that has been shocked must be removed from service and quarantined immediately, and held in a secure place. Your supervisor or safety manager should immediately contact FPS, who will send a replacement SRL to you by next day delivery. Once you install the replacement SRL, you may return the damaged SRL to DFP in the same box. The replacement SRL will be a permanent replacement. Your SRL will be repaired and returned to our inventory of serviced replacement units, and you will only be billed for the repairs.

Proper Use and Care of the SRL

If the Self-Retracting Lifeline (SRL) is too high to reach manually, you may use a tag line, boat hook or other suitable device to pull it down to you. Always pull the lifeline down gently, and be careful to ease it back into the housing gently.

Do not leave retractable lifelines pulled “out” when not in use.

Constant loading of the retraction springs can cause “spring hysteresis”, or loss of memory and fatiguing of the internal retraction springs, leading eventually to an unsafe condition.

If the lifeline ever gets away from the user and snaps back into the housing, the internal mechanism may be damaged. If the lifeline is difficult to pull out, it may be the result of “spring hysteresis”. Try this procedure to remedy the problem: Pull the lifeline all the way down a couple of times and return it gently to reset the spool. If the lifeline is still stuck in the housing or abnormally difficult to pull out, the unit must be removed from service immediately and sent to DFP for repair.

Recognizing a “Shocked SRL”

All SRL’s must be visually inspected by the user before each hookup. See the photo below: a “shocked” SRL will look like this photo. Notice the red colored band above the clamp swivel. Note also that the clamp will no longer swivel. If you observe the red or orange indicator visibly showing above the clamp, the SRL must be taken out of service immediately. Once an SRL has been shocked, further usage may result in an unsafe condition. Shocking an SRL causes the unit to engage a safety “slip clutch” mechanism designed to slow down a falling worker, then to engage a braking mechanism designed to terminate the fall. These components are designed to be used for a single fall arrest. After a single fall arrest usage, the system should be repaired and re-certified only by an authorized factory source.



This SRL has been “shocked”, note the red indicator at the base of the clamp.

Daily Equipment Inspection is required

Each User must visually inspect their Harness and SRL (Self-Retracting Lifeline) daily. If you experience any unusual hesitation in the rolling movement of the trolley, or any binding of the lifeline as it is drawn out of the SRL, report the problem to your safety manager immediately.

COMMONLY ASKED QUESTIONS

Must I use the system?

OSHA and MSHA law requires that no one (employees and non-employees alike) may ascend the protected area without using the system. Your company policy might also dictate proper procedures and use. This Fall Protection System was designed for this facility. Usage of the system should be mandatory. No company personnel, and no contractors or other nonemployees of the company who are under the control of company personnel while on the premises, should be authorized to traverse the protected area without using the system. Furthermore, no one should be allowed to utilize the system without proper training. Prior to using the system, all users must be trained in advance. All trained users of the system are to sign the “Registered and Approved User’s Log”.

Won’t my productivity go down if I use this system?

As with all new tools, there is a small learning curve, but workplace studies have repeatedly shown that productivity actually goes up when a worker becomes familiar with this type of fall protection system and becomes accustomed to using it regularly. Workplace studies have shown that once workers feel protected, they are less inhibited while traversing the protected areas and spend less time worrying about their personal safety tend to feel more relaxed while operating in hazardous areas and are therefore able to concentrate more on their work.

How do I use the system?

There is a typical five foot “walk past” maximum, which means you can usually feel safe traveling up to five feet past the end of the trolleys’ range of travel in any direction. Caution: If traversing that far allows the user to approach any apparent impact hazards, this typical “walk past” range may be further limited by a particular application. Check with Diversified Fall Protection and your safety manager prior to using the system if you have any reason to suspect this possibility.

How many people can use the system at the same time?

The maximum number of users who may utilize the system simultaneously is stamped on the metal label attached to the system. If your system is rated for more users than the number of sets of equipment which have been provided, additional “user sets” may be ordered and attached.

What should I do if I fall?

Try to stabilize yourself and call for help immediately. Seek assistance if needed to regain your balance and establish a safe foothold. If unable to safely climb back onto the vehicle, remain calm and call for assistance. If you cannot get immediate help, try to stay calm and relaxed. Don't panic. The system will hold you in place.

Report all falls to your supervisor immediately. Do not be afraid to report falls, the system is there for your safety. **REPORT YOUR FALL IMMEDIATELY, EVEN IF YOU ARE ABLE TO WORK YOURSELF FREE!**

If you have been suspended for more than a few minutes, do not move around. Sudden moves are not recommended...Breathe deeply and move slowly, and try to remain calm. Seek immediate medical assistance.

What should I do if I'm suspended in the air?

A worker cannot hang by a safety harness indefinitely. If suspended for more than a few minutes, circulation to the legs may be inhibited, and toxins can accumulate in the legs due to impaired circulation. This medical condition, known as suspension trauma, is extremely dangerous. When the constriction of the harness is alleviated, circulation improves.... and those toxins circulate through the body. After prolonged suspension in a body harness, a fall arrest victim should be assisted from the harness. Caution should be taken to prevent excessive movement by the fallen worker and he/she should be watched carefully until medical personnel arrive. Do not attempt to increase blood circulation by rapid moving or stretching. A rescued worker should be encouraged to stay calm and remain standing. Do not raise the legs of the victim above the level of the heart. Seek immediate care from a trained professional. Advise the attending trained medical professional to carefully check him/her for warning signs indicating possible symptoms of Suspension Trauma, such as dizziness, heart palpitations, sweating, nausea, disorientation, vomiting, extremely fast (or slow) heartbeat, headache, or severe pain in the lower extremities.



If the SRL has been shocked it must be removed from service immediately. A thorough inspection must be performed on the SRL by Diversified Fall Protection prior to recertification and approval for further usage. Exchange units are available on an "overnight" emergency basis from DFP to minimize your downtime. Do not discard the SRL. A damaged self-retracting lifeline may be repaired and re-certified for further usage. The Body Harness should be replaced immediately after a fall arrest. After a fall, employees should immediately notify a Supervisor and/or the Safety Manager. The Safety Manager should notify Diversified Fall Protection immediately at 1-844-958-1195 for emergency attention to the equipment.

What are the maximum weight requirements of the system?

Standard harnesses supplied by DFP are rated to support users (person plus weight of equipment) who weigh up to four hundred and twenty pounds (420#). Standard SRL's supplied by DFP are rated to support users who weigh up to three hundred and ten pounds (310#). Special SRL's are available upon request at additional cost for users weighing up to four hundred and twenty pounds (420#). The system's trolley rails and supporting structure are designed and rated to handle any personnel meeting the criteria listed above.

Does this system meet the proper regulatory requirements?

In the professional opinion of the manufacturer and its legal advisors, this system complies with all applicable OSHA, MSHA, CSA and ANSI requirements in effect on the date of installation. As laws, rules and regulations change, Fall Protection Systems will attempt to keep your company up to date on any modifications necessary that may be required to ensure continued compliance.

What should I do if the trolley doesn't roll freely?

In the unlikely event that the trolley is not rolling freely, try to determine the cause by visual inspection. The four wheels each have sealed bearings, and under normal usage should never require maintenance. Contaminants such as grease or grime, grain dust, windblown dirt, animal nesting or fecal matter may be the cause and should be removed.

What should I do if snow or ice freeze up the trolley?

In extreme weather, the trolley may become ice-encrusted, frozen in position or hard to move. Prior to resuming normal work procedures in bad weather, it may be necessary to run the trolley back and forth on the system to release snow, ice or other debris from the trolley rail as follows: Tug and lock the SRL, and walk the trolley up and down the entire system. Caution: Frozen particles may be dislodged. Take precautions to protect your eyes and other features from falling matter. The trolley is designed to break away most loose ice and snow this way. Do not use the system when excessive ice is present.

ADDITIONAL INFORMATION

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844-958-1144

OHIO

24400 Sperry Drive
Westlake, OH 44145

NORTH CAROLINA

350 Green Oaks Pkwy
Holly Springs, NC 27540

SOUTHERN CALIFORNIA

28258 Stanford Avenue
Valencia CA 91355

UTAH

875 S 600 W
Heber City UT 84032

MISSOURI

1976 Innerbelt Business Center Drive
Overland, MO 63114



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