

## Operation and Maintenance Manual for FrenchCreek Production

### R-Series Self Retracting Lifelines with Emergency Retrieval Capability and TP Series Tripod



**⚠ WARNING ⚠**  
**USER MUST READ, UNDERSTAND AND FOLLOW  
ALL INSTRUCTIONS BEFORE USE. FAILURE TO  
DO SO CAN RESULT IN SERIOUS INJURY OR  
DEATH. CONTACT FRENCHCREEK PRODUCTION  
OR YOUR LOCAL FRENCHCREEK DISTRIBUTOR IF  
ADDITIONAL INSTRUCTIONS ARE NEEDED.**

**This device is designed to be used for fall protection/rescue recovery.  
This device should be used in its retractable mode to arrest a fall.  
If required, the winch arm can be engaged and used for rescue/recovery.  
Instructions must be read and followed.  
This device is not designed for regular duty lifting and lowering.**

**ATTENTION:** This product serves as part of a fall protection system. All users, must read, understand, and follow the manufacturer's instructions for each and every component of the system. All instructions must be followed for proper application, installation, use, and maintenance of this product. Changing the product, misuse of the product, or failure to follow instructions may result in serious injury or death.

If you have any questions concerning the application, installation, use, or maintenance of this product, please contact FrenchCreek Production.

## **DESCRIPTION**

RSeries 3-Way Recovery System come with a carabiner for anchorage tie off, impact indicating swivel locking snap for harness connection, lengths from 20 – 50 ft, and choice of lifelines from galvanized wire rope, stainless steel wire rope and synthetic rope.

### **1.0 APPLICATIONS**

**1.1 PURPOSE:** FrenchCreek Production self- retracting lifelines are components in personal fall arrest systems (PFAS). They are to be used in situations where worker mobility and fall protection is needed.

**A. FALL ARREST:** This device is used as part of a personal fall arrest system, which includes a FrenchCreek Production full body harness, and a FrenchCreek Production anchorage connector.

**1.2 LIMITATIONS:** The following application limitations must be considered before using this product:

**A. CAPACITY:** The SRL is for use by a single person with a combined weight (person, clothing, tools, etc.) 310 lbs. maximum.

**B. FALL CLEARANCE:** Proper clearance must be present below the worker to arrest a fall and avoid striking a lower level, obstruction, or the ground. A clear fall path must be present to ensure the retractable lifeline will arrest a fall.

**C. STANDARD USE:** The retractable lifeline will extend and retract the full length of the lifeline while keeping some tension on the line. If a fall occurs, the retractable lifeline will arrest the fall and absorb the energy created during the fall. If a fall occurs at maximum lifeline length, the retractable lifeline is equipped with additional length to allow for full function during the arrest. Always use a tag line when conditions require. Always allow the lifeline to slowly retract into the housing. Avoid swing falls by always working directly under the anchorage. Never work above the anchorage. Do not use if any part of the system does not pass inspection. Do not service this device. Do not allow lifeline constituent (cable/synthetic rope) to come into contact with anything that

will damage the lifeline including sharp, abrasive rough, or high temperature surfaces, welding, heat sources, electrical hazards, or moving machinery. Do not service or lubricate this device. Service to be performed only by FrenchCreek Production or authorized agents.

**D. ENVIRONMENTAL CONDITIONS:** Conditions in the surrounding environments can cause damage and may affect the performance of the product. Use in these environments may require more frequent inspections and service.

Such environments may include; chemical hazards, elevated temperatures, electrical hazards (always avoid contact with electrical hazards), corrosive environments, etc. Contact FrenchCreek Production with any questions about corrosive environments.

**E. TRAINING:** This equipment must be installed and used by persons trained in its correct application and use.

National standards (ANSI) and federal regulations (OSHA) require training before using this equipment. Refer to all applicable federal, state and local regulations governing the training requirements of this equipment.

## 2.0 SYSTEM REQUIREMENTS

**2.1 PERSONAL FALL ARREST SYSTEM:** FrenchCreek retractable lifelines are designed for use with FrenchCreek Production approved components and subsystems only. Other components may be incompatible, which could directly affect the safety and reliability of the entire system. Personal fall arrest components used with this system must meet all applicable OSHA and ANSI requirements. A FrenchCreek anchorage connector and full body harness are recommended components for this retractable lifeline.

**2.2 COMPONENT COMPATIBILITY:** FrenchCreek Production equipment is designed for use with FrenchCreek approved components and subsystems only. Substitutions or replacements made with non-approved components or subsystems may jeopardize compatibility of the unit and may affect the safety and reliability of the complete system.

**2.3 CONNECTOR COMPATIBILITY:** A connector is considered to be compatible with the connecting element when the interlinking parts will not cause the gate mechanism to open or apply force to the gate mechanism regardless of the orientation. Do not use any connector that is not compatible. Contact FrenchCreek Production if you have any questions about compatibility.

**2.4 CONNECTIONS:** Connections should only be made using self-locking snap hooks and carabiners. Self-locking snap hooks and carabiners must have a minimum tensile strength of 5,000 Lbs. All connections must be compatible in size, shape, and strength. All connectors must be fully closed and locked. Contact FrenchCreek Production if you have any questions about connections. FrenchCreek Production connectors are specifically designed to be used according to each product's instructions. Refer to all OSHA and ANSI standards for proper connections.

**2.5 ANCHORAGE STRENGTH:** The anchorage and anchorage connector used for 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 Lbs. (22.2kN) per employee attached, or shall be designed, used, and installed as part of a complete PFAS which maintains a safety factor of at least two and under the supervision of a qualified person.

### 3.0 INSTALLATION AND USE

**WARNING:** Do not alter or intentionally misuse this equipment. Consult FrenchCreek Production when using this equipment in combination 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, and sharp edges.

**WARNING:** Consult your doctor if there is reason to doubt your fitness to safely absorb the shock from a fall. Age and fitness seriously affect a worker's ability to withstand fall. Pregnant women or minors should not use this equipment.

**3.1 BEFORE USE:** This equipment must be carefully inspected according to the inspection criteria **before each and every use.**

**3.2 FALL PROTECTION PLAN:** Plan the use of your system BEFORE installation. Consider all factors that will affect your safety during the use of this equipment. The following points are some of the factors that must be considered.

**A. ANCHORAGE:** The anchorage selected should be as close as possible to directly above the work area. The location of the anchorage is very important when considering swing falls and fall clearance. Never work above the anchor. The anchorage should be overhead to limit free fall and avoid swing falls. The anchorage selected must meet the strength requirements of section 2.5.

**B. FREE FALL:** Fall arrest systems must be rigged so the free fall distance is never more than 6 feet. Retractable lifelines when mounted overhead will limit the free fall distance to 2 feet or less. Sloped/horizontal applications will greatly affect the free fall distance. A swing fall application will also increase the vertical free fall distance. Never knot, clamp, or fix the lifeline in a stationary position. Do not allow slack in the lifeline. The lifeline should be taught between the bottom of the housing and the connection to the user. Avoid situations where the lifeline can become entangled with other objects or workers. The lifeline should never be allowed to come under, around, or between the user's legs or around any appendage. Do not attach a lanyard or other lifeline to the retractable to extend the length of the retractable lifeline. Contact FrenchCreek Production with any questions about free fall distance.

**C. AVOID SWING FALLS:** A swing fall can occur when the anchorage is not directly above (overhead) the user at the point the fall occurs. The amount of energy generated by swing fall is related to the distance from the vertical center of the anchorage location. Serious injury can result from striking an object during a swing fall. Swing falls will also increase the free fall distance. Avoid swing falls by working directly below the anchorage location.

**D. FALL CLEARANCE:** There must be proper clearance in the fall path from striking a lower lever or other structures. When mounted directly overhead, the maximum arrest distance of a retractable lifeline is 4-½ feet (ANSI Z359). The arrest distance is the total vertical distance required to arrest a fall, including deceleration distance and activation distance. This arrest distance needs to be factored in to the clearance distance, which should also include anchorage location, worker height, and safety factor. Contact FrenchCreek Production with any questions about fall clearance.

**E. SHARP EDGES:** Do not allow lifeline constituent (cable/synthetic rope) to come into contact with anything that will damage the lifeline including sharp, abrasive rough, or high temperature surfaces, welding, heat sources, electrical hazards, or moving machinery. The PFAS should be rigged to prevent its contact with hazardous objects in the workplace, which could damage the equipment or prevent its proper functioning.

**F. RESCUE:** Before a fall occurs, the employer must have a rescue plan and the ability to implement a rescue. The employer shall provide for prompt rescue or the ability of the employee to rescue himself.

**G. AFTER THE RESCUE:** Any equipment that has been subjected to fall arrest forces must be removed from service immediately. Retractable lifelines must be sent to the manufacturer for repair/recertification. Refer to other equipment instructions for the rest of the PFAS.

**3.3 BODY ATTACHMENT:** The impact indicating swivel snap hook on the retractable lifeline must be connected to the back dorsal D ring on a full body harness. Never use a body belt for fall protection. Ensure that the impact indicating swivel snap is attached to the D ring and fully closed and locked.

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Instructions must be read and followed.  
This device is not designed for regular duty lifting and lowering.**

**3.4 USE:** The retractable lifeline will extend and retract the full length of the lifeline while keeping some tension on the line. If a fall occurs, the retractable lifeline will arrest the fall and absorb the energy created during the fall. If a fall occurs at maximum lifeline length, the retractable lifeline is equipped with additional length to allow for full function during the arrest. Always use a tag line when conditions require. Always allow the lifeline to slowly retract into the housing. Avoid swing falls by always working directly under the anchorage. Never work above the anchorage. Do not use if any part of the system does not pass inspection. Do not service this device. Do not allow lifeline constituent (cable/synthetic rope) to come into contact with anything that will damage the lifeline including sharp, abrasive rough, or high temperature surfaces, welding, heat sources, electrical hazards, or moving machinery. Ensure connections are compatible in size, shape, and strength and that all connections are secure. The retractable should pull out freely and retract fully. If there is slack in the lifeline or if the retraction hesitates, the unit should be returned to FCP for service.

**WARNING: If the retractable lifeline has been subject to fall arrest forces, it must immediately be removed from service and sent to FrenchCreek Production for inspection and service.**

## 4.0 TRAINING

**4.1 GENERAL:** It is the responsibility of the user to assure they read, understand, and follow all instructions presented in this manual. The user must be properly trained in the use, care, inspection, application limits, and consequences of this equipment. Training should be periodically repeated. Training must be done without exposing the user to a fall hazard.

## 5.0 INSPECTION

**5.1 GENERAL:** Before each use, the device and connectors must be inspected for loose fasteners, bent, cracked, distorted, worn, malfunctioning, or damaged parts. The lifeline should be inspected for cuts, kinks, frays, damage, burns, corrosion, or worn areas. The working end of the lifeline should be checked to ensure all thimbles and ferrules are in place and fixed properly with the impact indicating swivel locking snap.

**5.2 LIFELINE:** Pull entire lifeline out of device and inspect the lifeline for any damage, cuts, kinks, abrasions, wear, frays, burns, or corrosion. Inspect the termination of the lifeline to the impact indicating swivel locking snap to ensure thimble and ferrules are properly affixed. Inspect the impact indicating swivel locking snap. Ensure the gates of the snap are working properly and fully lock and close. Visually inspect the snap to ensure impact indicator is not showing. The impact indicator is a red band located just below the swivel. Slowly let all lifeline retract into the device. It should retract smoothly without any hesitation.

**5.3 FUNCTION:** Pull out approximately two feet of lifeline. While holding the lifeline above the impact indicator give the lifeline a sharp, quick pull. The unit should lock up and remain locked up. There should be no slippage of the braking mechanism and no more lifeline will come out of the device. Once tension is released from the lifeline, the unit should return to its retractable mode.

**5.4 HOUSING:** Inspect the housing for loose or missing screws. Inspect the housing for cracks, dents, bends, corrosion, distortions or any damage. The labels and warnings should be fully present and legible. Inspect all connectors for damage and proper function.

**5.5 FREQUENCY:** The retractable lifeline must be inspected before each use. A record log of all inspections and servicing must be maintained by the company safety director. An annual recertification by FrenchCreek Production is recommended to ensure all components are in working condition. Use in abusive environments will necessitate more frequent inspections by a competent person. FrenchCreek Production or its authorized agents must only perform service.

**5.6 ACTION:** If any of the above conditions exist or become apparent during the inspection process, remove the retractable lifeline from service immediately. If the retractable lifeline has been involved in a fall or if it has been exposed to the forces of fall arrest, the retractable lifeline must be removed from service immediately.

## 6.0 MAINTENANCE AND STORAGE

**6.1 CLEANING:** Clean the housing and lifeline with a water and mild soap solution. Rinse thoroughly and towel or air dry. Do not use heat to dry the retractable lifeline.

This should be done periodically when excess dirt or other materials build up on the retractable. Excess dirt or other materials may inhibit the function of the device.

**6.2 STORAGE:** Store the retractable lifeline in a cool, clean, and dry environment. Refer to component instructions for proper storage.

## 7.0 SPECIFICATIONS

Housing Material:	Cast Aluminum
Drum Material:	Cast Aluminum
Main Shaft:	Stainless Steel
Ratchet Center:	Alloy Bronze
Braking Pawls:	Alloy Bronze
Main Spring:	Stainless Steel
Impact Indicating Snap:	Alloy steel, plated, min. tensile 5,000 Lbs. Housing
Finish:	Powder coated
Fasteners:	Stainless Steel Lifeline
Material:	

Denoted by letter at the end of the Model #

G – Galvanized wire rope 3/16” Diameter, Tensile of 4,200 Lbs.

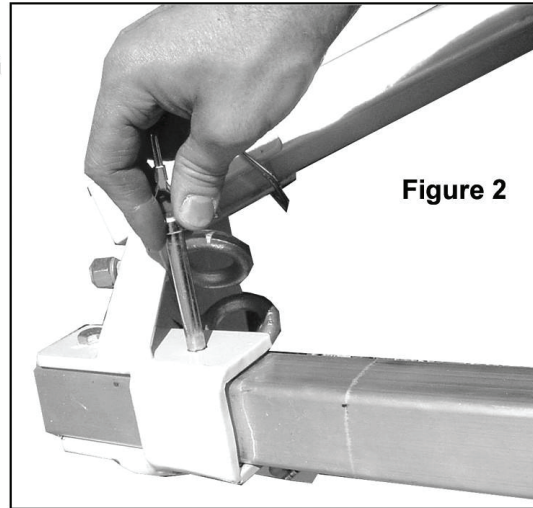
SS – Stainless Steel wire rope 3/16” Diameter, Tensile of 3,600 Lbs.

T - Technora (synthetic) rope 3/16” Diameter, Tensile of 5,600 Lbs.

## Tripod Set up:

1. Tripod set up should be done in an area free from all hazards, (traffic, holes, low power lines, etc.), make sure the tripod is set up away from the entry hole.

2. After freeing the chain, lift each leg individually to align holes in leg with the holes in the tripod head. (Figure 2) Be sure that all pins are pushed completely through the tripod leg and head and are locked in place

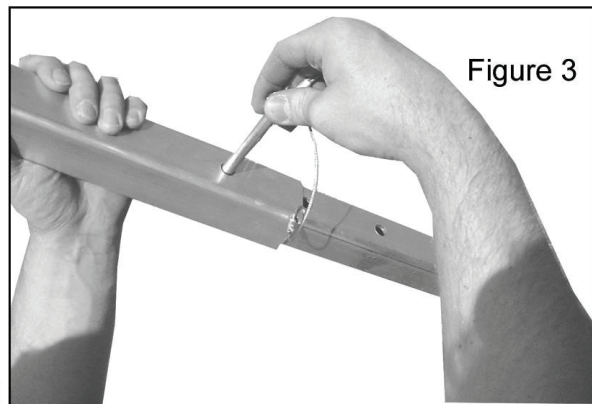


3. Tripod height extension and adjustments are made by pulling the leg retainer pins, extending the legs, and re-installing them after reaching the desired height. (Figure 3)

A minimum of four holes must be exposed for winch attachment.

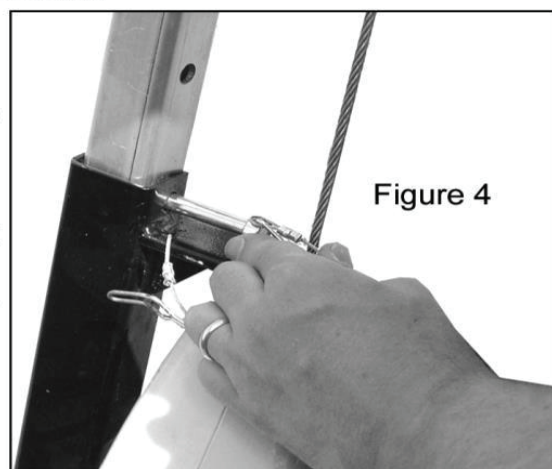
NOTE: Tripod head must be level when being used.

Visually inspect the tripod. Look for any signs of bent, distorted or damaged legs. Ensure that all feet have rubber pads and that the chain is in place. The head must be free from all distortion, cracks and missing hardware. Once again, make sure that all retainer pins are completely through holes and locked in place. DO NOT use if any abnormalities are found.



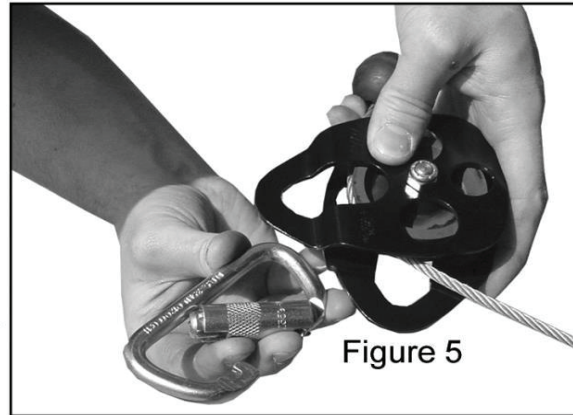
## Retrieval Unit/Winch Attachment:

1. Place the unit mounting bracket on any of the tripod legs, with the cable exiting the unit in the up direction. The unit should be positioned to the right of the leg to which it is mounted (when viewing from the outside of the tripod). Secure the unit to the inner leg by using the retainer pins attached to the mounting bracket. (Figure 4) The pins must pass completely through the leg and bracket and be locked in place. Both pins must be used

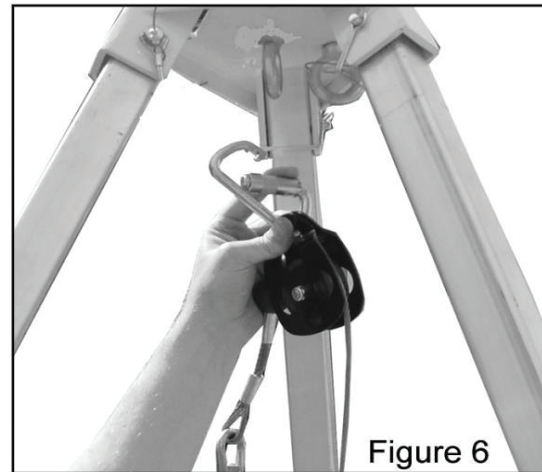


2. Retrieval units should be packaged with pulley and carabiner for attaching the working line to the tripod head. After unit is attached to the tripod leg, pass the working line through the split pulley (figure 5).

3. Attach carabiner to pulley, then attach pulley and carabiner to eye bolt anchor on the head of the tripod (figure 6).



The Tripod and retrieval unit should now be set up and ready for use, as shown in figure 7.



The Tripod can now be moved over the entry hole. Be sure that the tripod legs are at least six inches from the edge of the hole.



## R-Series Retrieval Unit Function

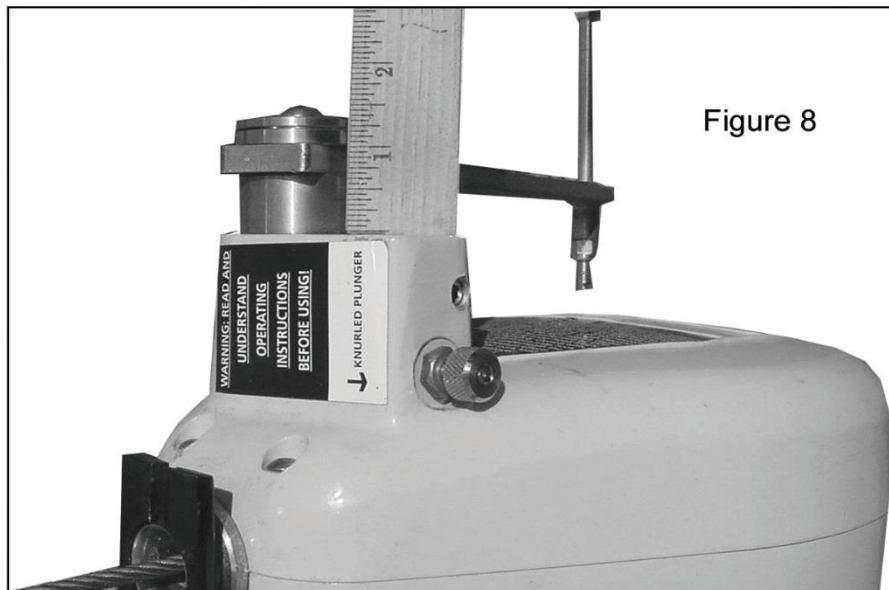
R Series Retractable lifelines offer both fall-arrest protection, and means of personnel retrieval should an incapacitated person need rescued. These are the two modes of the R-series:

**Retractable mode:** When the unit is functioning as a retractable lifeline, paying cable in and out as the worker moves, locking and catching a worker should they fall.

**Winch mode:** When the unit is engaged in winch mode, an attendant can crank on the unit and raise or lower a fellow worker out of the hazardous environment.

## Using the R-Series

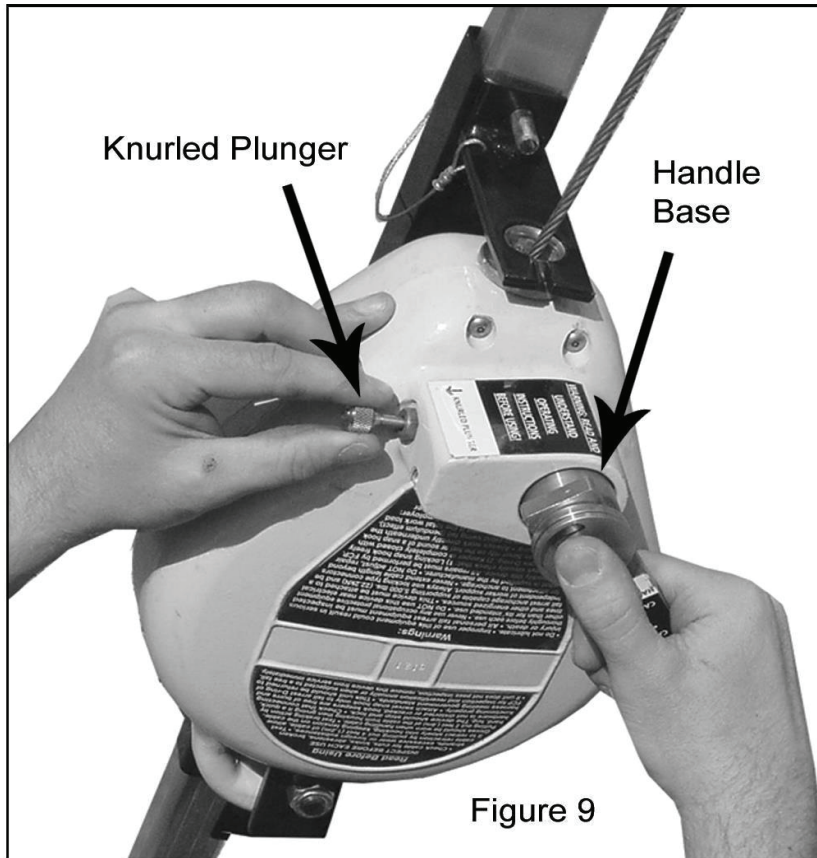
The R-Series comes in retractable mode when new. The only way to tell this by looking is at the base of the handle. When the base of the handle protrudes from the housing 1 1/2", the unit is in retractable mode (Figure 8)



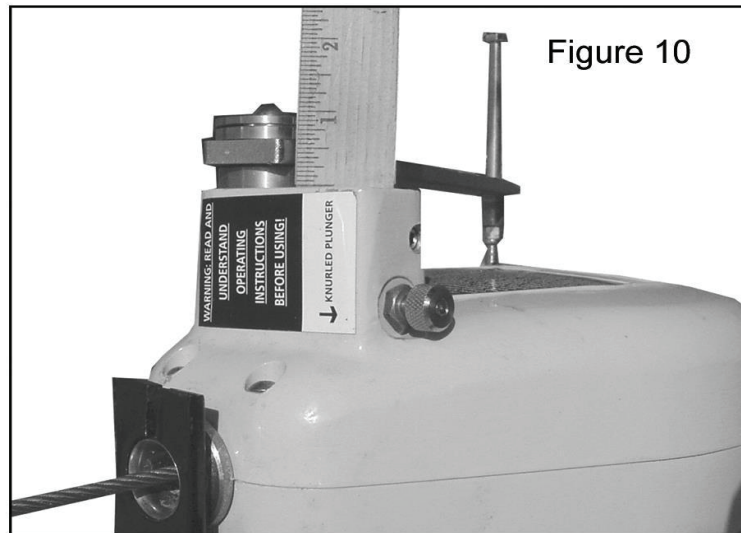
Also, pull on the lifeline, and if the line comes out of the unit, and automatically pulls back in, the unit is in retractable mode.

To switch the R-series from retractable mode to winch mode, perform the following action:

1. Pull out and hold the knurled plunger
2. Push straight in on the base of the handle, giving the handle a turn clockwise to ensure that the gears mesh properly. (Figure 9)
3. Once the base of the handle is protruding 1" (instead of 1 1/2" ) from the housing (Figure 10), the unit is in winch mode, and now can raise and lower.
4. Release knurled plunger. The unit should now be able to crank cable in and out.



Switching unit into and out of winch mode



R-Series in winch mode

## **ENTRY AND EXIT, ONE PERSON, WITH PRIMARY MEANS OF ENTRY/EXIT:**

The entrant must wear a full body harness snugly as per the manufacturer's recommendations. The attendant will place the R-Series unit into retractable mode, then attach the lifeline to the entrant's dee ring located on the center of the back. The entrant will enter the confined space by the primary means of entry (ladder, rungs, etc.). When the work to be done is completed, the entrant shall exit by the primary means of exit. At no time should the winch be engaged to provide general entry or exit operations.

## **ENTRY AND EXIT, ONE PERSON, WITHOUT PRIMARY MEANS OF ENTRY/EXIT**

The entrant must wear a full body harness snugly as per the manufacturer's recommendations. The attendant will place the R-Series unit back into retractable mode, then attach the snap hook to the entrant's harness dee ring located on the center of his back. The entrant will enter the confined space by means of a secondary winch that is either attached to his center/back dee ring or to a front, seat dee ring. The entrant must always be attached to the R-Series by the harness back dee ring. When the work to be done is completed, the entrant shall exit by the confined space by means of a secondary winch that is either attached to his center back dee ring or to a front, seat dee ring. At no time should the primary R-Series winch be engaged to provide general entry or exit operations.

## **ENTRY AND EXIT, MORE THAN ONE PERSON**

This type of entry provides for increased hazards. Check to see if additional entry/exit points may be established and used. Although more than one R-Series unit may be used on a tripod, only one person at a time may be subjected to fall hazards, potential rescue or rescue procedures. Consult your local manufacturer's representative, or confined space specialist for specific details, suggestions, and regulations that you may encounter.

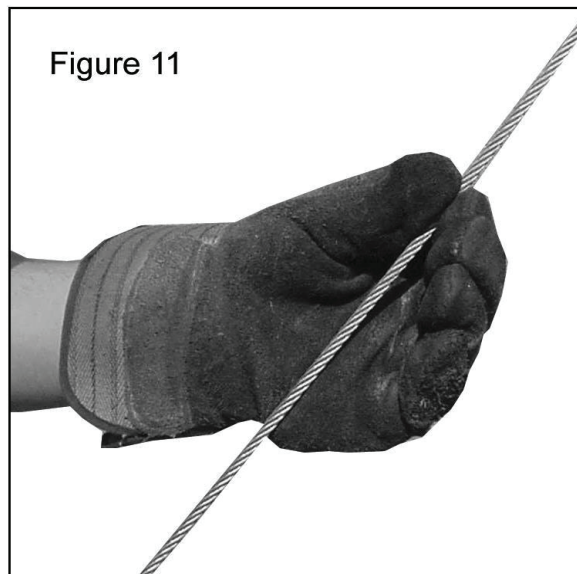
## **RESCUE:**

At any time, should the entrant fall while entering or exiting, the fall will be arrested by the R-Series unit. Should the entrant be able to regain footing, and continue on, it should be done. But, should it become necessary to rescue him, the attendant shall proceed with switching the unit to winch mode as described in the "Using the R-Series" section of this manual. The attendant shall now begin rescue procedures by cranking the unit to retrieve the entrant.

The attendant shall winch the entrant up to a level in which the waist is still in the hole. At this point, the attendant will stop winching, bend at the knees, and lift the entrant onto the lip of the confined space. Once seated, the attendant will crank counter-clockwise to lay the entrant down. The proper rescue authorities may now be summoned as per the confined space entry sheet.

## ON-SITE OPERATION INSPECTION:

1. With the unit in retractable mode, ensure that the cable extends and retracts smoothly, completely, and easily.
2. Test the fall arrest braking system by pulling out approximately 24 inches of cable and give it a quick, sharp pull while maintaining pressure on the cable. The cable should lock and not allow additional cable from coming out of the unit.
3. To test the winch mode, maintain a slight downward pressure on the cable and switch the unit to winch mode. Maintain at least 20 pounds of force on the cable, and winch the cable in and out by turning the crank clockwise and counter-clockwise. Cable should freely go in and out of the unit when cranking
4. Check the winch brake by leaving the unit in winch mode, and pull out on the cable. Cable should not be able to come out of the unit, and the winch handle should not move.
5. Inspect cable. Be sure that the unit is in retractable mode. Pull all cable out of the unit, and wearing gloves, slowly let the cable retract back into the unit, visually checking for damaged cable, and feeling for broken strands with the glove. (Figure 11)



Inspection of cable in R-Series

6. Check Load indicating swivel snap on end of cable. Be sure that the gate keeper remains locked unless the locking keeper is depressed. Be sure that the red indicator is not showing, as that means that the unit has been impacted and should be removed from service.

**IF THE R-SERIES UNIT DOES NOT PASS ANY ONE OF THE INSPECTION CRITERIA ABOVE, REMOVE FROM SERVICE IMMEDIATELY. CONTACT FRENCHCREEK PRODUCTION IF REPAIRS ARE NEEDED.**

## **WARNINGS**

- Do not use this equipment for other than its intended purpose. Uses other than for intended purpose can result in serious injury or death.
- Do not use equipment beyond rated capacity.
- Always follow manufacturer's instructions. If additional instructions are required, please contact FrenchCreek Production customer service at 1-877-228-9327
- Inspect before each use
- Be sure to use equipment in accordance with applicable local, state and federal regulations.
- Do not attempt to adjust or repair any components. Doing so could cause failure of the equipment, and cause serious injury or death.
- This equipment should only be operated by fully trained personnel.

***100% OWNED AND OPERATED IN THE U.S.A.***



**FrenchCreek**  
FALL SAFETY

*100 North 13th St.  
Franklin, PA 16323*

## Section 1 General Information

Notes:

## **Section 2 Set-up and Operations**

### **Pre-start Inspection**

It is the user's responsibility to inspect the lift system before operation begins. It is recommended that inspection of the system take place though other personnel recently operated the lift system.

The walk-around inspection, or visual inspection, is the most efficient method of checking your system. The purpose of the inspection is to insure that the system is in good operating order before it is used.

### **Overall Cleanliness**

Check all system surfaces to be sure they are cleared of any oil, or foreign objects (rags, papers, tools, etc.).

### **Hydraulics**

Check for fluid leaks or any signs of physical damage or wear in the hydraulic system.

### **Lubrication**

Check the maintenance record to see if lubrication is necessary before operation. A lubrication chart is provided with details on specifications.

Check the oil level in the hydraulic reservoir. With the cylinder fully retracted, it should be at the top of the sight gauge. One inch of air space is required above the sight gauge level for oil expansion.

### **Structural**

Check the entire unit for any signs of physical damage. Look for any signs of failure. Consult the factory if any damage or failure has occurred.

### **Maintenance Records**

Update your maintenance records each time the system is serviced. The lift of this system will depend upon its proper care and maintenance.

### **Equipment Utilization Records**

Authorized users should document usage of the system to assist other personnel in operating and maintaining this system properly.

## Section 2 Set..up and Operation

### Pressure Gauges

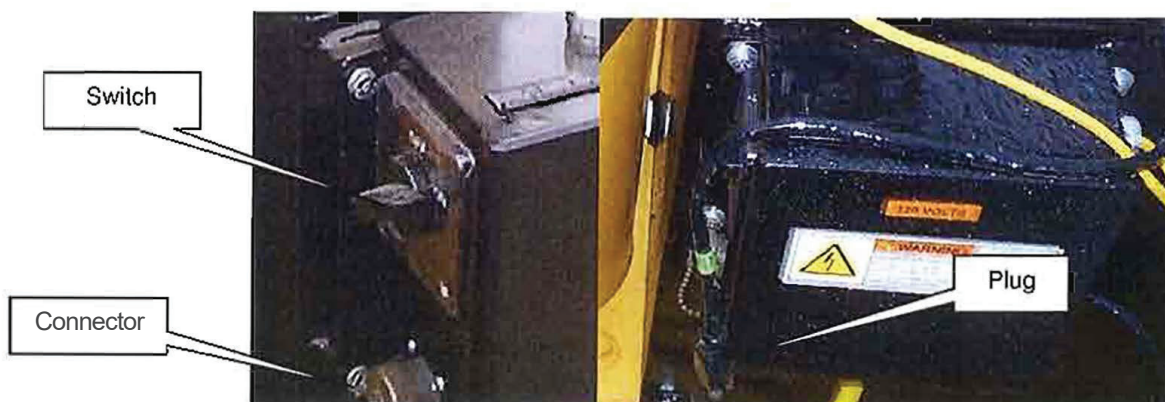
On each power unit is a hydraulic pressure gauge. The gauge shows how evenly the load is distributed. These gauges read when cylinders are extended and retracted. When beginning a lift, as the gauge needle stops and the load begins to lift, check pressure readings against the load chart. Check the gauge on each lifting unit against the other lifting units being used. The readings should be *very* close.

The greater the weight of the load, the faster the movement of the load when retracting. When retracting the cylinder the gauge will read full system pressure, when the cylinder is operated empty. This is necessary to retract the cylinder in an unloaded condition, because of the differences of the piston sizes. The retract side of the piston is much smaller than the extend side. Therefore, it requires more pressure to *move* the piston.

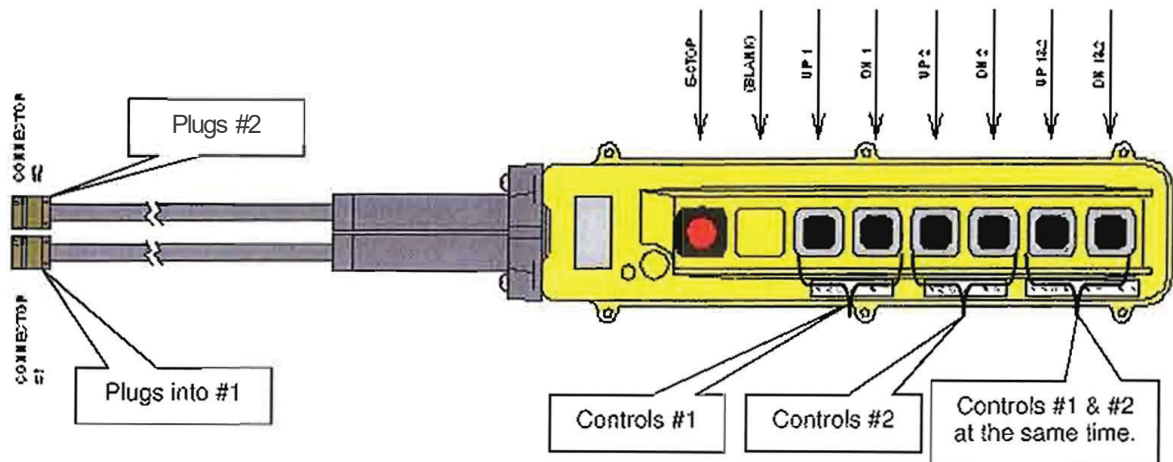
### Connecting and basic operation

To operate the 2020SC two 20amp (110VAC) circuits will be required, (220VAC is available) if both bases are plugged into the same circuit. The circuit breaker will trip when the motors begin to see a load either when lifting a load or during lowering of the system. In addition, using a too long of a power cord or too small of gauge of wire can cause the breakers to trip. Whenever there is a problem with the motors stalling or the breakers tripping first try replacing the cords with a shorter cord, heavier gauge cord or both.

Before connecting the power cords, first connect the pendant control, the connectors on the pendant should be label 1 and 2. Make sure they correspond with the bases. The "ON/OFF" switch is in the "OFF" position and the E-Stop on the pendant is depressed. Connect the power cords, pull the E-Stop and turn the "ON/OFF" switches to "ON". Do not use the E-Stop to turn the system on and off.



## Section 2 Set-up and Operation



Before attaching any kind of rigging to the system it should be cycled to ensure it is functioning properly. Press the "UP" button for #1 and let the #1 cylinder extend a couple inches, stop and then press the "Down" button for #1 to retract the cylinder. Repeat for #2 then extend and retract both using the buttons that control both at the same time. Cycle the system up and down into all three stages, to ensure there is no leakage around the rod seals and to ensure there is not a voltage or amperage issue.

If the system is equipped with drives move the handle on the selector valve to the propel position. If the drives are the pin on type, ratchet the wheels down so they make contact. Press the "UP" buttons for #1 and #2 and make sure both units travel in the same direction. Do the same with the "DOWN" buttons and repeat with the buttons for operating both at once. If the system has the integral drives, make sure the free wheel valve is in the propel position. Operate the drive as mentioned above.

