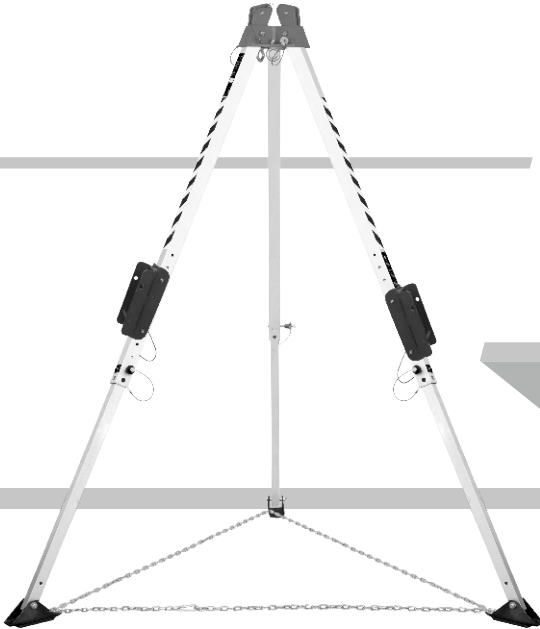


FRONTLINE

FALL PROTECTION

USER INSTRUCTION MANUAL



MEGAPOD

**This instruction manual
applies to the following models:**

TAN07, TAN10



ANSI Z359.1-2007

Do not skip this instruction manual. Read the instruction manual carefully before using the equipment. If failed in doing so it may cause serious Injury or Death.

Note: The user is advised to keep the user instructions document for the life of the product.

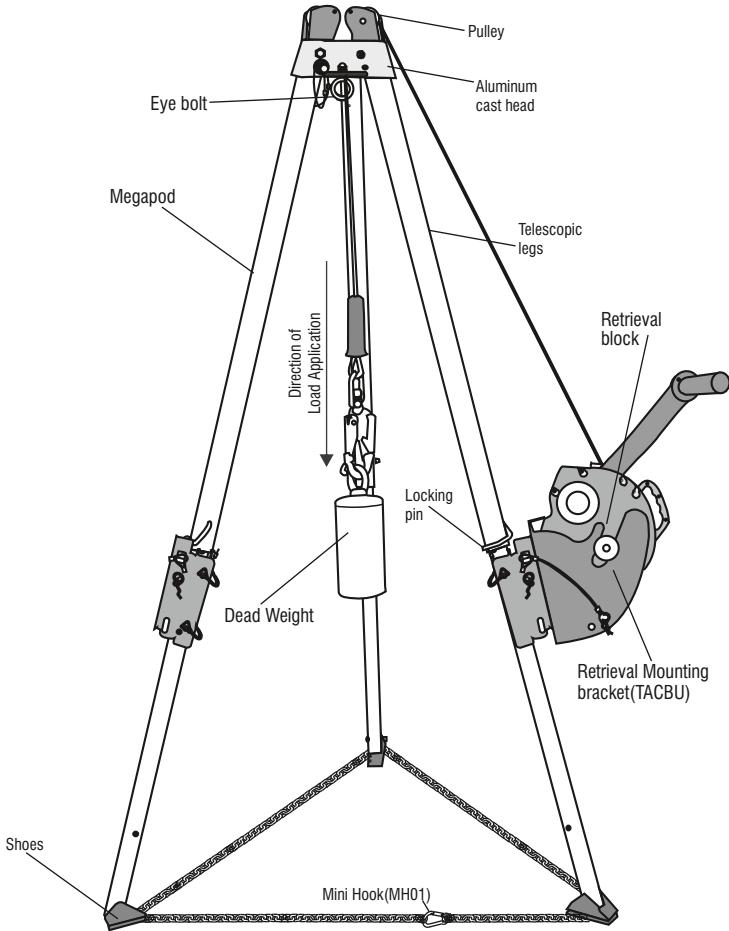
Manufacturer	:	www.frontlinefall.com
Certification Body	:	SATRA Technology Centre, Wyndham Way, Telford Way, Kettering, NN16 8SD, UK (Notified Body 0321)

This manual must be read and understood in its entirety and used as part of fall protection training program as required by OSHA or any state regularity agency. These instructions are intended to meet the manufacturer instructions as required by ANSI Z 359.1-2007 and OSHA . The user must fully understand the proper equipment use and limitations.




- 1. GENERAL REQUIREMENTS, WARNINGS AND LIMITATIONS:** The Equipment is designed for use as a part of a personal fall protection system. Components must not be used for any other operation other than that which it has been designed and approved. Fall Arrest system are designed to comply with OSHA. Fall Restraint System must be designed by a Qualified Person, and must be installed and used under the supervision of a competent person.
 - All authorized persons/users must refer the regulations governing occupational safety, as well as applicable ANSI or CSA standards. Please refer to product labeling for information on specific OSHA regulations, and ANSI and CSA standards met by product.
 - Consult a doctor if there is any reason to doubt a user's ability to withstand and safely absorb fall arrest forces. Age, fitness, health conditions can seriously affect the worker a fall occur. Pregnant Women and minors should not use this equipment.
 - Proper precautions should always be taken to remove any obstructions, debris, material, or other recognized hazards from the work area that could cause injuries or interfere with the operation of the system. All equipment must be inspected before each use according to the manufacturer's instructions. All equipment should be inspected by a qualified person on a regular basis.
 - To minimize the potential for accidental disengagement, a competent person must ensure system compatibility.
 - Equipment must not be altered in any way. Repairs must be performed only by the Manufacturer, or persons or entities authorized in writing by the manufacturer.
 - Any product exhibiting deformities, unusual wear, or deterioration must be immediately discarded. Any equipment subject to a fall must be removed from service. The authorized person/user shall have a rescue plan and the means at hand to implement it when using this equipment.
 - Never use fall protection equipment for purposes other than those for which it was designed. Fall protection equipment should never be used for towing or hoisting.
 - All synthetic material must be protected from slag, hot sparks, open flames, or other heat sources. The use of heat resistant materials is recommended in these applications.
 - Never use natural materials (manila, cotton, etc.) as part of a fall protection system.
 - Do not expose this equipment to chemicals which may have a harmful effect on the materials used to construct it. Be especially aware of caustic environment, or those that contain high levels of organic acids or bases. If you are uncertain about the safe operation of this equipment in any environment, contact FRONTLINE for further instructions.
 - Do not use the equipment near sharp edges, abrasive surfaces and looping around small diameter structural members.
 - Do not use the equipment around moving machinery or electrical hazards.

FRONTLINE Megapod should be used only with the combinations of components, sub-systems or both which may affect or interfere with the safe function of one another. Be certain that connecting devices are compatible and that other elements of the PFAS are safe to use and compatible before use.

Product Over View



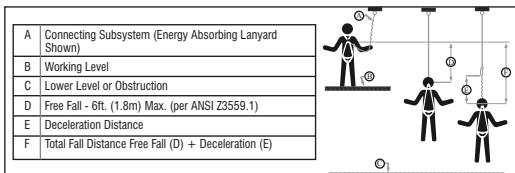
Brackets used with megapod variants-

Ref. No.	SA 17(25) Sub 1	SA 17(25)	TACBU
Supplied with Megapod	Yes	No	No
Can be purchased separately	Yes	Yes	
Product	 <p>Part of standard Megapod</p>	 <p>Part of standard Winch</p>	

2. **SYSTEM LIMITATIONS & REQUIREMENTS:** Consider the following limitations/requirements prior to installing or using this equipment:

- **Capacity:** FRONTLINE Megapod is designed for use by ONE person with a combined weight (clothing, tools, etc.) of no more than 310 lbs. (140 kg) Make sure all of the components in your system are rated to a capacity appropriate to your application. FRONTLINE Megapod is rated 5000lbs.
- **Free Fall:** Personal fall arrest systems used with this equipment must be rigged to limit the free fall to 6 feet (1.8 M) per ANSI Z359.1. Restraint systems must be rigged so that no vertical free fall is possible. Work positioning systems must be rigged so that free fall is limited to 2 feet (.6 m) or less. Personnel riding systems must be rigged so that no vertical free fall is possible. Climbing systems must be rigged so that free fall is limited to 18 inch. (.46 cm) or less. Rescue systems must be rigged so that no vertical free fall is possible. See subsystem manufacturer's instructions for more information. Below figure illustrates fall clearance requirements. There must be sufficient clearance below the user to allow the system to arrest a fall before the user strikes the ground or other obstruction. Clearance required is dependent on the following factors:

- Elevation of Anchorage
- Connecting Subsystem Length
- Deceleration Distance
- Free Fall Distance
- Worker Height



Movement of Harness Attachment Element

- **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 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 subsystem is used.
- **Environmental Hazards:** Use of this 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; heat, chemicals, corrosive environments, high voltage power lines, gases, moving machinery, and sharp edges.
- **Compatibility of Components:** Unless otherwise noted, FRONTLINE equipment is designed for use with FRONTLINE approved components and subsystems only. Substitutions or replacements made with non-approved components or subsystems may jeopardize compatibility of equipment and may affect safety and reliability of the complete system.
- **Compatibility of connectors:** Connectors are considered to be compatible with connecting elements when they have been designed to work together in such a way that their sizes and shapes do not cause their gate mechanisms to inadvertently open regardless of how they become oriented. If the connecting element that a snap hook or karabiner attaches to is undersized or irregular in shape, a situation could occur where the connecting element applies a force to the gate of the snap hook or karabiner. This force may cause the gate (of either a self-locking or a non-locking snap hook) to open, allowing the snap hook or karabiner to disengage from the connecting point. Connectors must be compatible in size, shape, and strength. Self-locking snap hooks and karabiners are required by ANSI Z359.1 and OSHA.
- **Making connections:** Always use snap hooks and karabiners which needs double manual action to open with this equipment. Only use connectors that are suitable to each application. Ensure all connections are compatible in size, shape and strength. Do not use equipment that is not compatible. Ensure all connectors are fully closed and locked. The connection should not be made-
 - To a D-ring to which another connector is attached.
 - In a manner that would result in a load on the gate.
 - In a false engagement, where features that protrude from the snap hook or karabiner catch on the anchor and without visual confirmation seems to be fully engaged to the anchor point.
 - To each other.
 - Directly to webbing or rope lanyard or tie-back (unless the manufacturer's instructions for both the lanyard and connector specifically allow such a connection).
 - To any object which is shaped or dimensioned such that the snap hook or karabiner will not close and lock, or that roll-out could occur.

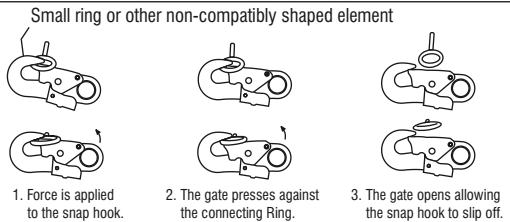
NOTE: Other than 3,600 lb. (16 kN) gated hooks, large throat opening snap hooks should not be connected to standard size D-rings or similar objects which will result in a load on the gate if the hook or D-ring twists or rotates. Large throat snap hooks are designed for use on fixed structural elements such as rebar or cross members that are not shaped in a way that can capture the gate of the hook.

3. RESTRICTIONS REGARDING MAKING CONNECTIONS:

- Use connectors conforming to ANSI Z351.12.2009 to make connections.
- Do not make connections where the hook locking mechanism can come into contact with a structural member or other equipment and potentially release the hook.
- Do not connect a snap hook into a loop or thimble of a wire rope or attach in any way to a slack wire rope.
- The snap hook must be free to align with the applied load as intended (regardless of the size or shape of the mating connector)
- A karabiner may be used to connect to a single or pair of soft loops on a body support such as a body belt or full body harness, provided the karabiner can fully close and lock. This type of connection is not allowed for snap hooks.
- A karabiner may be connected to a loop or ring connector that is already occupied by an automatic closing connector.

Fig. 2 - Unintentional Disengagement (roll-out)

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

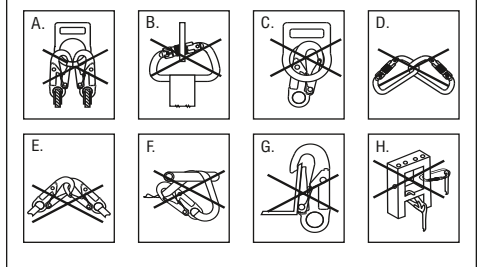


4. CONNECTING SUB-SYSTEMS: Personal fall arrest systems used with this equipment must meet applicable state, OSHA and ANSI requirements. A full body harness must be worn when this equipment is used as a component of a personal fall arrest system. As required by OSHA, the personal fall arrest system must be capable of arresting the user's fall with a maximum arresting force of 1,800 lbs. (8 kN), and limit the free fall to 6 ft. (1.8 m) or less. If the maximum free fall distance must be exceeded, the employer must document, based on test data, that the maximum arresting force will not be exceeded, and the personal fall arrest system will function properly. Free fall greater than 6 ft. (1.8 m), and up to a maximum of 12 ft. (3.7 m) is possible, FRONTLINE recommends using a personal fall arrest system incorporating a FRONTLINE Energy Absorbing Lanyard. FRONTLINE has performed testing using the FRONTLINE Energy Absorbing Lanyard in free falls up to 12ft. (3.7 m) to ensure the maximum arresting force does not exceed 1,800 lbs. (8.0 kN), and the system functions properly.

- **Rescue Plan:** Rescue operation must be performed by the trained and competent personal. The rescue operation must be performed under the supervision of the rescue expert team or personal. It is advised that while working on site work in pairs. Before going for the work the user must have the rescue plan according to the work.
- **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 FRONTLINE about policies regarding replacement of FRONTLINE components involved in a fall.

5. SPECIFIC INSTRUCTIONS: FRONTLINE Anchors are designed to provide complete attachment system to user in the event of a fall. These attachment systems must be connected to the proper body support and connecting facility. These Anchors are meant to hold the victim of fall till the rescue operation is performed, so this is important that the whole system must have the all the essential components before going for the use. The whole fall arrest system must be used by the trained/competent person. It is advisable to make a checklist of the essential components according to one's use before going for work.

Fig. 3 - Inappropriate Connections



6. **USE OF FALL ARREST SYSTEM:** The fall arrest system MUST ONLY be connected to the back attaching element on the harness provided for the purpose ("D" ring or webbing attachment extension) or to the chest anchorage points ("webbing link" or "D" link). The chest anchorage points must imperatively be used together. The D-rings on the belt and the ventral anchorage point must only be used for the attachment of a work positioning or retaining system and never with a fall arrest system.
During use, check regularly the adjustment and/or attachment points.
7. **ANCHORAGE STRENGTH:** The anchorage strength required is dependent on the application type. The following are the requirements of ANSI Z359.1 for these application types:
- **Fall Arrest:** Anchorages selected for fall arrest systems shall have a strength capable of sustaining static loads applied in the directions permitted by the system of atleast- 1. 5,000 lbs.(23kN) for non-certified anchorages, or 2. Two times the maximum arresting force for certified anchorages. When more than one fall arrest system is attached to an anchorage, the strengths set forth in (1) and (2) above shall be multiplied by the number of systems attached to the anchorage.
As Per OSHA: Anchorages used for attachment of personal fall arrest systems shall be independent of any anchorage being used to support or suspend platforms and capable of supporting at least 5,000 lbs.(23kN) per user attached, or be designed, installed and used as part of a complete PFAS which maintains a safety factor of at least two, and is under the supervision of a qualified person.
 - **Work Positioning:** The structure to which the work positioning system is attached must sustain static loads applied in the directions permitted by the work positioning system of at least 3,000 lbs., or twice the potential impact load, whichever is greater. See OSHA. When more than one work positioning system is attached to an anchorage, the strengths stated above must be multiplied by the number of work positioning systems attached to the anchorage.
 - **Restraint:** Anchorages selected for restraint and travel restraint systems shall have a strength capable of sustaining static loads applied in the directions permitted by the system of at least: 1. 1,000 lbs. (4.5 kN) for non-certified anchorages, or 2. Two times the foreseeable force for certified anchorages. When more than one restraint and travel restraint system is attached to an anchorage, the strengths set forth in (1) and (2) above shall be multiplied by the number of systems attached to the anchorage.
 - **Rescue:** Anchorages selected for restraint and travel restraint systems shall have a strength capable of sustaining static loads applied in the directions permitted by the system of at least: 1. 3,000 lbs. (13.3 kN) for non-certified anchorages, or 2. Five times the foreseeable force for certified anchorages. When more than one restraint and travel restraint system is attached to an anchorage, the strengths set forth in (1) and (2) above shall be multiplied by the number of systems attached to the anchorage.

ANCHORAGE & ANCHORAGE STRENGTH: Anchorage and anchorage strength requirements are dependent on the Full Body Harness. In accordance with ANSI Z359.1, anchorages selected for fall Arrest Systems must meet the anchorage strength requirements defined in below:

Anchorage Strength Requirements		
Fall Arrest¹	Non-Certified Anchorage:	5,000 lbs.(23kN)
	Certified Anchorage ² :	2 Times the Maximum Arresting Force for Certified Anchorage
Restraint¹	Non-Certified Anchorage	1,000 (4.5 kN)
	Certified Anchorages ² :	2 times the foreseeable force for certified anchorages.
Work Positioning¹	Non-Certified Anchorages	3,000 lbs (13.3 kN)
	Certified Anchorage ² :	2 times the foreseeable force for certified anchorage.
Rescue¹	Non-Certified Anchorage	3,000 lbs (13.3 kN)
	Certified Anchorage ² :	5 times the foreseeable force for certified anchorage.
Climbing	The structure which a climbing system is attached must sustain the loads required by that particular system. See the instructions for the climbing system for requirements.	

1 Multiple Systems: When more than one of the defined system is attached to an anchorage, the strength defined for Non- Certified or certified anchorage shall be multiplied by the number of systems attached to the anchorage.

2 Certified Anchorage: An anchorage for fall arrest, positioning, restraint, or rescue systems that a qualified person certifies to be capable of supporting the potential fall force that meet the criteria for a certified anchorage prescribed in this standard.

8. **INSPECTION:** Before each use, proceed with thorough visual examination to ensure that the PPE is intact (the same applies for the equipment used with the harness (connectors, lanyard...) and take all necessary steps concerning the implementation of rescue in total safety. In the event of your product being contaminated, consult the manufacturer or authorized agent. If you have any doubts regarding the safe state of the product or if the product has been used to arrest a fall, for your personal safety, it is essential to withdraw the PPE from service and send it back to the manufacturer or a qualified repair Center for checking or destruction.
Following the inspection, the center will provide written authorization or refusal for the use of the PPE. Never attempt to modify or repair PPE.

- **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. Record the inspection results in the inspection and maintenance log at the end of this manual. The component should be checked for Cut, Frayed, Heavily Soiled, welding burns etc. Metal parts like D-rings should be duly check for the crack, bent, deformities, corrosions etc.

9. LIMITATIONS:

- Megapod should be a personal property of its user.
- It should not be used in highly acidic or basic environments.

10. FITTING & SIZING: The Megapod comes in two variants i.e. 7ft.(2.10) and 10ft (3.05). Depending on the condition of usage one can choose best option as per requirement.

STEP 1: Place the Megapod on the floor with the feet on the ground. Remove the locking Pins from the head and the legs.

STEP 2: Fully spread the legs and then replace the locking pins on head to secure the legs in the open positions.

STEP 3: Resecure the locking pins into legs, after adjustment of the required height or in fully extended position.

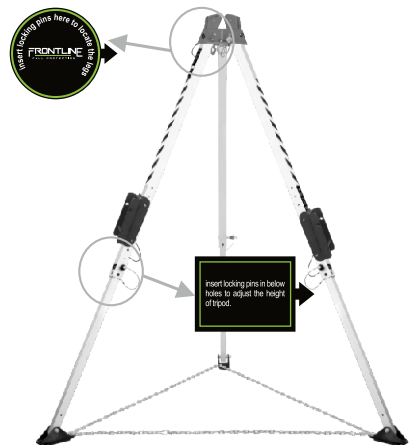
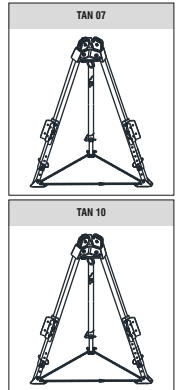
STEP 4: Place the Megapod over the entry point. Adjust the Megapod as necessary by removing pins in one leg at a time. Adjust each leg so the Megapod sits level above user's entry point. Ensure that all pins are re-installed.

STEP 5: Place the Retrieval Block on the opposite leg of the Megapod, where the winch is installed.

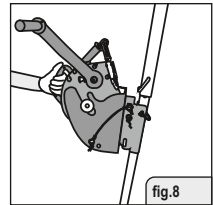
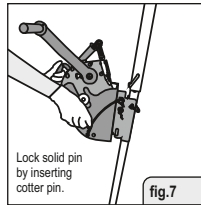
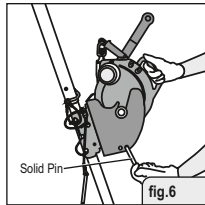
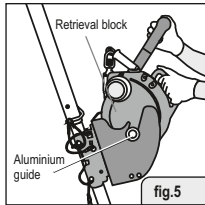
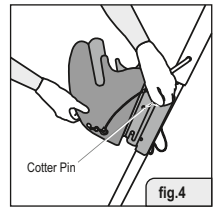
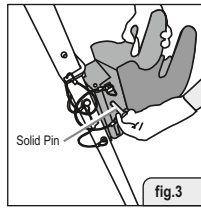
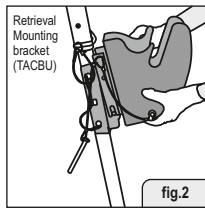
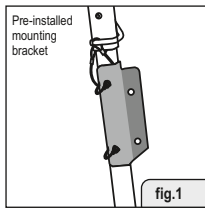
11. FALL CLEARANCE: If there is a risk of fall or if the only anchorage is below the attachment points on the harness, it is essential to use a lanyard provided with an energy absorber. Before using a shock-absorbing lanyard, check that there is sufficient fall clearance below the user to prevent any collision with the structure or the ground.

12. MATERIAL & CONSTRUCTION:

- **Materials:** High Strength Aluminium
- **System Requirements:**
 - **Compatibility of Components:** FRONTLINE Fall Protection equipment is designed to be used with FRONTLINE approved components. Please contact FRONTLINE if you have a question regarding compatibility. Making substitutions without approval from FRONTLINE Fall Protection may lead to injuries and or death. A Qualified person can make a determination on compatibility of equipment from different manufacturers.
 - **Compatibility of Connectors:** Connectors (D-rings, hooks, karabiners) must be capable of supporting at least 5,000 lbs. (23kN). Do not use equipment that is not compatible. Non-compatible connectors may unintentionally disengage. Self-locking snap hooks and karabiners are required by CSA, ANSI and OSHA. Connectors must be compatible in size, shape, and strength.
 - **Making Connections:** Only use self-locking snap hooks and karabiners with any FRONTLINE Fall Protection equipment. Do not use equipment that is not compatible.



Installation of retrieval block on megapod:



- STEP 1** Locate the megapod leg that has pre-installed mounting bracket for installing the retrieval block.
- STEP 2** Place the retrieval mounting bracket (TACBU) on the lower mounting bracket pre-installed on the megapod leg and insert the guiding pin into the slot. (refer fig. 2 and 3)
- STEP 3** Use solid pin for locking the Retrieval Mounting bracket(TACBU) on pre-installed mounting bracket of megapod leg. (refer fig. 4)
- STEP 4** Lock the solid pin on mounting brackets using cotter pin. (refer Fig. 4)
- STEP 5** Insert retrieval block in bracket guided by aluminum guide provided on both side of retrieval. (refer Fig. 5)
- STEP 6** Lock the anchorage eye with bracket followed by solid pin and lock solid pin from other end by inserting cotter pin. (refer fig. 6&7). Now the retrieval block is ready to be used on megapod (refer fig. 8)

13. OTHERS:

- Maintenance & Cleaning:** Repairs to equipment can be made only by a FRONTLINE representative or person or entity authorized by FRONTLINE. Contact FRONTLINE for maintenance and repair. Cleaning after use is important for maintaining the safety and life of the equipment. Cleanse the equipment of all dirt, corrosives, and contaminants. If the equipment cannot simply be wiped clean use a mild soap and water. Rinse, wipe, and hang to dry in shade.
- Storage:** Store the anchorage connector component harness in a cool, dry and clean place out of direct sunlight. Avoid areas where heat, moisture, light, oil, and chemicals or their vapors or other degrading elements may be present. Equipment which is damaged or in need of maintenance should not be stored in the same area as usable equipment. Heavily soiled, wet, or otherwise contaminated equipment should be properly maintained (e.g. dried and cleaned) prior to storage.

Prior to using equipment which has been stored for long periods of time, a Formal Inspection should be performed by a competent person. For harnesses with Dielectric buckles, pass-thru buckles or Quick Connect Buckles, store the harness with the buckles connected.
- Training:** It is the responsibility of the users to assure that they read, understand, and follow all instructions and are trained in the care and use of this device. Training should be repeated periodically and any time there is a change of components within the system. Training must be conducted without exposing the trainee to a fall hazard

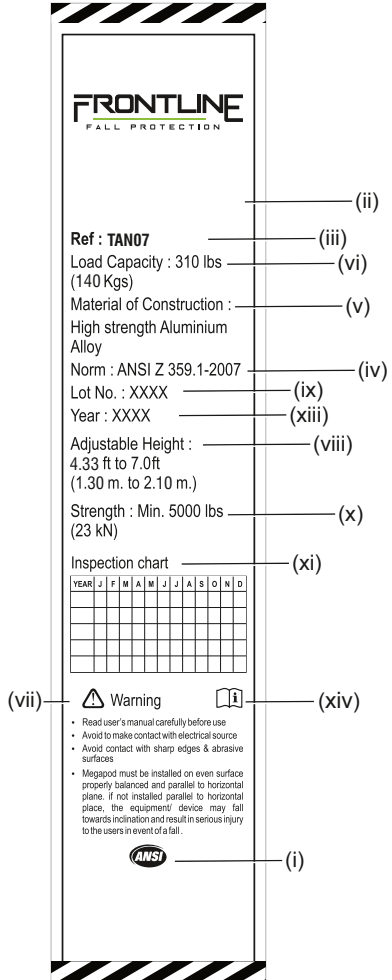
LABEL

14. PRODUCT MARKINGS:

- **Capacity:** 1 user, 310 lbs.(140 kgs) maximum weight.
- **Strength:** 5000 lbs (23 kN)

MARKING EXPLANATION: The Product is marked with-

- (i) The ANSI icon showing that the product meets the requirements of the PPE Directive.
- (ii) Identification of manufacturer's
- (iii) Type or product code
- (iv) Certifying Norm & Year
- (v) Material of Construction
- (vi) Load Capacity
- (vii) Warning
- (viii) Adjustable Height
- (ix) Lot No.
- (x) Minimum Breaking Strength
- (xi) Inspection Chart
- (xii) Norm & Year
- (xiii) Year of manufacturing
- (xiv) Read Instructions before use



15. PERIODIC EXAMINATION: Keep these instructions with the product and fill in the identification sheet, entering the information taken from the markings.

- The periodic examination is essential to test the resistance and condition of the equipment and to guarantee the safety of the user.
- A qualified person must examine this equipment at least once each year in strict compliance with the instructions of the manufacturer and the previous check must be recorded on the attached sheet.
- The frequency of inspection should be increased in accordance with the regulations, if the equipment is in heavy usage or if the equipment is used in harsh environments. Check also that the markings are legible.

WARRANTY: All FRONTLINE products bear 1 year warranty against manufacturing defects, applicable on Unused FRONTLINE products, from the date of purchase. However, FRONTLINE shall not be liable for any accident or damage while the product is in use.

LIFESPAN: The estimated product Lifespan is 10 years from the date of manufacturing. The following factors can reduce the Lifespan of the product : intense use, contact with chemical substances, specially aggressive environment, extreme temperature exposure, UV exposure, abrasion, cuts, violent impacts, bad use or maintenance.

DISCLAIMERS: This information on the product is based upon technical data that FRONTLINE obtained under laboratory conditions and believes to be reliable. FRONTLINE does not guarantee results and take no liability or obligation in connection with this information. As conditions of end use are beyond our control it is the user's responsibility to determine the hazard levels and the use of proper personal protective equipment. Persons having technical expertise should undertake evaluation under their own specific end-use conditions, at their own discretion and risk. Please ensure that this information is only used to check that the product selected is suitable for the intended use. Any product that is damaged, torn worn or punctured should be discontinued from usage immediately.

EQUIPMENT RECORD

Product		
Model & type/Identification	Trade Name	Identification number
Manufacturer	Address	Tel, fax, email into use
Year of manufacture	Purchase Date	Date first put into use
Other relevant information (e.g. document number)		

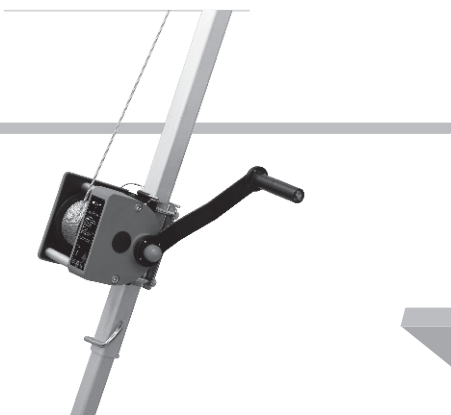
PERIODIC EXAMINATION AND REPAIR HISTORY

Date	Reason for entry (periodic examination or repair)	Defects noted, repairs carried out and other relevant information	Name and signature of competent person	Periodic examination next due date

FRONTLINE

FALL PROTECTION

USER INSTRUCTION MANUAL



WINCH



**This instruction manual
applies to the following models:**

RUG60, RUG130

**Compatible with FRONTLINE MEGAPOD
TAN07 & TAN10**

Do not skip this instruction manual. Read the instruction manual carefully before using the equipment. If failed in doing so it may cause serious Injury or Death.

Note: The user is advised to keep the user instructions document for the life of the product.

Manufacturer	:	www.frontlinefall.com
Certification Body	:	SATRA Technology Europe Ltd, Bracetown Business Park, Clonee, Dublin D15 YN2P Ireland (Notified Body 2777)
Ongoing Assessment Body	:	SGS United Kingdom Ltd., Unit 202B, Worle Parkway, Weston-super-Mare, BS22 6WA, UNITED KINGDOM. (Notified Body 0120)

This manual must be read and understood in its entirety and used as part of fall protection training program as required by OSHA or any state regulatory agency. These instructions are intended to meet the manufacturer instructions as required by OSHA 1910, ANSI Z 359.1-1992, ANSI Z117.1-1995 The user must fully understand the proper equipment use and limitations. If failed in doing so it may cause serious injuries or death.

Warning: This product is to be used as a part of the complete system. The user must follow the manufacturer's instructions for each component of the complete system for proper use and maintenance of this product.

Important: Before using this equipment record the product identification information from the label on the winch in the inspection and maintenance log of this manual. RUG60/RUG130 are manually operated winches by FRONTLINE and are classified by underwriters laboratories, Inc. as to the 300 lbs. load capacity only.

1. DESCRIPTION:

FRONTLINE Winches:

- RUG60: 60 feet of 3/16" Galvanized Steel Wire Rope
- RUG130: 130 feet of 3/16" Galvanized Steel Wire Rope

2. APPLICATIONS:

- **Purpose:** FRONTLINE winches are to be used for personnel riding and material handling or rescue and evacuation. These winch models are to be used with a tripod, or other support structure, and can be used in situations where personnel or materials need to be raised or lowered 60-130 feet.
- **Winch Application Types:**
 - **Personnel Riding and Material Handling:** The FRONTLINE winch is used to raise or lower a worker to a work level. Please note at the work level the worker is no longer supported by the winch hence, it is recommended that the worker must be connected to a back-up arrest system while being raised or lowered.
 - **Rescue and Evacuation:** The FRONTLINE winch is used to raise or lower an endangered or injured worker, or rescue personnel. Applications include permit and non-permit confined space entry work.

3. LIMITATIONS:

The following application limitations must be considered before using this product. Failure to observe the same could result in serious injury or death.

- **Installation:** The winch must be installed in accordance with the requirements stated in this manual.
- **Capacity:** The maximum working load for this product is 300 lbs. (136 kg).
- **Personal Fall Arrest Systems:** Personal fall arrest systems used with the FRONTLINE winch must meet applicable state and federal regulations.

- **Physical and Environmental Hazards:** Use of this equipment in areas with physical or environmental hazards may require that additional precautions be taken to reduce the possibility of damage to this equipment or injury to the user. Hazards may include, but are not limited to; high heat (welding or metal cutting), acid or caustic chemicals, corrosive environments such as exposure to seawater, high voltage power lines, explosive or toxic gases, moving machinery or sharp edges. Contact FRONTLINE if you have questions about the application of this equipment in areas where physical or environmental hazards are present.
- **Training:** This equipment is to be installed and used by persons who have been trained in its correct application and use.
- Refer to National Standards, including; ANSI local state and OSHA requirements for more information on the application of this and associated equipment.

4. SYSTEM REQUIREMENTS:

- **Compatibility of Components:** FRONTLINE equipment is designed for use with FRONTLINE approved components and subsystems only. Substitutions or replacements made with non approved components or subsystems may jeopardize compatibility of the equipment and may effect the safety and reliability of the complete system.
- **Compatibility of Connectors:** Connectors are considered to be compatible with connecting elements when they have been designed to work together in such a way that their sizes and shapes do not cause their gate mechanisms to inadvertently open regardless of how they become oriented. Contact FRONTLINE if you have any questions about compatibility.
Connectors (hooks, carabiners, and D-rings) must be capable of supporting at least 5,000 lbs. (22.2kN). Connectors must be compatible with the anchorage or other system components. Do not use equipment that is not compatible. Non-compatible connectors may unintentionally disengage. Connectors must be compatible in size, shape, and strength. Self locking snap hooks and carabiners are required by ANSI Z359.12 and OSHA.

5. OPERATION AND USE:

WARNING: Do not alter or intentionally misuse this equipment. Consult FRONTLINE 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, electrical hazards, chemical hazards, and sharp edges.

Consult your doctor if there is any reason to doubt your fitness to safely absorb the shock from a fall arrest. Age and fitness seriously affect a worker's ability to withstand falls.

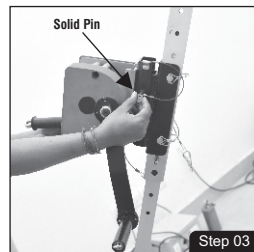
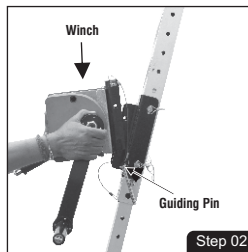
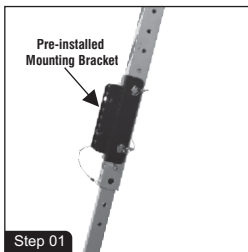
Pregnant women or minors must not use a FRONTLINE winch, unless for unavoidable emergency use situations.

- **Before each use:** Before each use of this equipment carefully inspect it to ensure it is in good working condition. Check for worn or damaged parts. Ensure all parts are present and secure. Check operation of winch; ensure that it will lift, lower, and hold the load under normal operation. Check winch and entire system for damage and corrosion. Do not use if inspection reveals an unsafe condition.
- **Inappropriate Connections:** Plan your system and how it will function before starting your work. Consider all factors that affect your safety during use. Some important points to consider when planning your system are:
 - **Hazard Evaluation:** Evaluate job site hazards prior to starting work. Consult applicable OSHA and industry standards for guidelines and regulatory requirements on issues such as confined space entry, personal fall arrest systems (PFAS), and single point adjustable suspended scaffolds.
 - **Work Site Geometry:** The installation and use of the support structure (tripod, davit arm and base) must be consistent with the geometric requirements stated in the associated manufacturer's instruction manuals. When suspending working lines from the support structure, check for obstructions or sharp edges in the work path. Avoid working where the user may swing and hit an object, or where lines may cross or tangle with that of another worker.
 - **Secondary or back-up Fall Arrest System:** When using the winch as a support for work positioning, a secondary or back-up fall arrest system is required. The FRONTLINE Tripod/K-Pod has provisions for connection of a secondary or back-up PFAS.
 - **Rescue:** A means of dealing with an accident or emergency must be planned in advance. Response time can play an important role in the survival of an injured worker. Users of this equipment must be trained in emergency procedures.
 - **Requirements for personal Fall Arrest Systems:** PFAS used with the FRONTLINE winch and support structure must meet applicable OSHA requirements. The PFAS should be rigged to minimize any potential free fall and never allow a free fall greater than 6 feet. It is recommended that the PFAS used with this equipment include a full body harness as the body support component. PFAS's that incorporate full body harnesses must maintain fall arrest forces below 1,800 lbs. and arrest the fall within 42 inches.

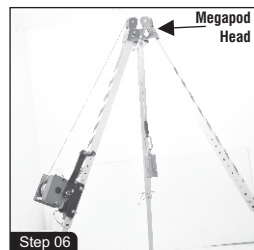
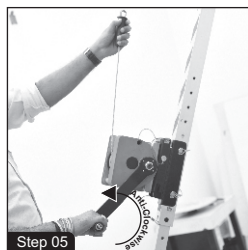
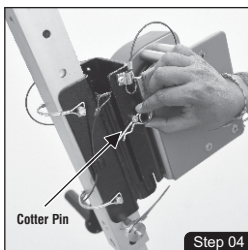
Body belts, unless incorporated into a full body harness, are not recommended for use with this equipment. A typical PFAS includes a full body harness, connecting subsystem or component (self retracting lifeline or lifeline and rope grab), and the necessary connectors to couple the system together. Anchorages selected for PFAS must sustain static loads, applied in the directions permitted by the PFAS, of at least; (A) 3,600 lbs. (16kN) when certification exists (see ANSI Z359.1 for certification definition), or (B) 5,000 lbs. (22.2kN) in the absence of certification. When more than one PFAS is attached to an anchorage, the anchorage strengths set forth in (A) and (B) must be multiplied by the number of PFAS attached to the anchorage. As per guidelines from OSHA 1926.500 and 1910.66, Anchorage used for attachment of a PFAS must be independent of any anchorage that are used to support or suspend platforms, and must support at least 5,000 lbs. (22.2kN) per user attached, or it should be designed, installed, and used as part of a complete PFAS which maintains a safety factor of at least two, and is supervised by a qualified person.

IMPORTANT: Body belts are not allowed for free fall situations. Body belts increase the risk of injury during fall arrest in comparison to a full body harness. Limited suspension time and the potential for improperly wearing a body belt may result in added danger to the user's health.

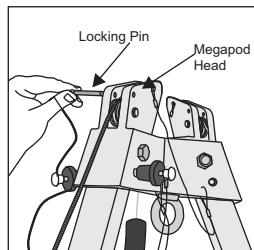
6. INSTALLATION OF FRONTLINE WINCH RUG60/RUG130 ON MEGAPOD TAN07 & TAN10 :



- STEP 1** Locate the megapod leg that have pre-installed mounting bracket for installing the winch.
- STEP 2** Place the winch on the mounting bracket of the megapod leg and insert the guiding pin into the slot.
- STEP 3** Use solid pin for locking the winch on pre-installed mounting bracket of megapod leg.



- STEP 4** Lock the solid pin on mounting brackets using cotter pin.
- STEP 5** Pull out the handle of the winch outside and rotate it anti-clockwise to release the steel wire. Keep on releasing till you are able to release enough length such that it can pass over the pulleys of the tripod and get suspended vertically downwards.
- STEP 6** At the head of megapod, lock the wire using locking pin; doing so restricts the unwanted movement of the wire during usage. For reference please refer below line drawing.



7. **TRAINING:** It is the responsibility of the user to assure that they are familiar with these instructions, and are trained in the correct care and use of this equipment.

8. **INSPECTION:**

• **Frequency:**

- **Before each use:** Visually inspect the Winch for proper functioning.
- **Monthly:** A formal inspection of the winch should be done by a competent person other than the user. Record results in the equipment record table.
- **Annual:** It is recommended that the winch be serviced by a factory authorized service center or the manufacturer. Extreme working conditions may require increasing the frequency of inspections. Annual servicing shall include, but not be limited to, an intensive inspection and cleaning of all internal and external components. Failure to provide proper service may shorten product life and could endanger performance.
- **After an impact:** Inspect entire winch.

WARNING: If the winch has been subjected to impact forces, it must be immediately removed from service and inspected. If the winch fails to pass the inspection, do not use. The equipment must be sent to an authorized service center for repair.

9. **MAINTENANCE, SERVICING, STORAGE:**

- Periodically clean the exterior of the winch using water and a mild detergent solution. Clean labels as required. At least twice a year, clean and lubricate the wire rope. Do not use solvents to clean the wire rope as they will remove internal lubrication. Lubricate wire rope using a cloth (wearing gloves) and a light machine oil.



LIFESPAN: The estimated product lifespan of this product is 10 years from the date of manufacturing. The following factors can reduce the lifespan of the product : intense use, contact with chemical substances, specially aggressive environment, extreme temperature exposure, UV exposure, abrasion, cuts, violent impacts, bad use or maintenance.

DISCLAIMER: This information on the product is based upon technical data that FRONTLINE obtained under laboratory conditions and believes to be reliable. FRONTLINE does not guarantee results and takes no liability or obligation in connection with this information. As conditions of end use are beyond our control it is the user's responsibility to determine the hazard levels and the use of proper personal protective equipment. Persons having technical expertise should undertake evaluation under their own specific end-use conditions, at their own discretion and risk. Please ensure that this information is only to check that the product selected is suitable for the intended use. Any product that is damaged, torn, worn or punctured should be immediately discontinued from usage .

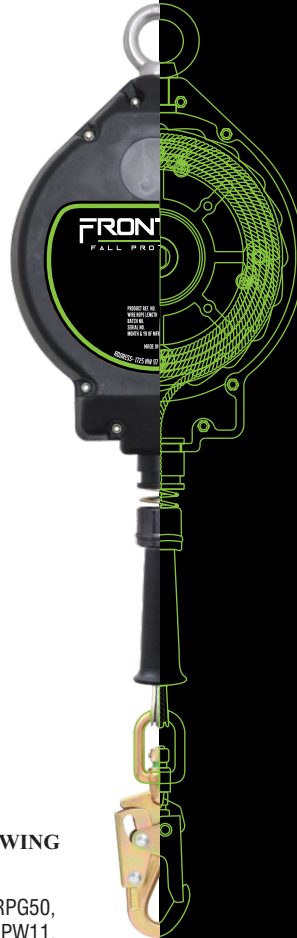
EQUIPMENT RECORD				
Product				
Model & type/Identification		Trade Name		Identification number
Manufacturer		Address		Tel, email into use
Year of manufacture		Purchase Date		Date first put into use
Other relevant information (eg. document number)				
PERIODIC EXAMINATION AND REPAIR HISTORY				
Date	Reason for entry (periodic examination or repair)	Defects noted, repairs carried out and other relevant information	Name and signature of competent person	Periodic examination next due date

FRONTLINE

FALL PROTECTION

S R L

SELF RETRACTABLE
LIFELINE
INSTRUCTION MANUAL



THE INSTRUCTIONS APPLIES TO THE FOLLOWING MODELS:

RPG10, RPG10, RPG15, RPG20, RPG25, RPG30, RPG40, RPG50, RPG60, RPG70, RPG80, RPG100, RPW06, RPW06, RPW11, RPW11, RPW15, RPW20, RPW25, RPW30, RPW40, RPW08, RPW08, RAW062R, RAG15, RAG20, RAG25, RAG30, RAG40, RAG50, RAG60, RAW15, RAW20, RAW25, RAW30, RAW40, MIT061S, RPW061CA, RPW061R, RPW061S, RPW062R, RPG30RE, RPG603W, RPG80RE, RPG10003W, RPG10LE, RPG18LE, RPG25LE, RPG50LE, RPG80LE



BKLFL 01-XX

Do not skip this instruction manual. Read the instruction manual carefully before using the equipment. If failed in doing so it may cause serious Injury or Death.

Manufacturer	:	www.frontlinefall.com
Certification Body	:	SATRA Technology Europe Ltd, Bracetown Business Park, Clonee, Dublin D15 YN2P Ireland (Notified Body 2777)
Ongoing Assessment Body	:	SGS United Kingdom Ltd., Unit 202B, Worle Parkway, Weston-super-Mare, BS22 6WA, UNITED KINGDOM. (Notified Body 0120)

Note: The user is advised to keep the user instructions document for the life of the product.

This manual must be read and understood in its entirety and used as part of fall protection training program as required by OSHA or any state regularity agency. These instructions are intended to meet the manufacturer instructions as required by ANSI Z 359.14 and OSHA 1926. The user must fully understand the proper equipment use and limitations.

TABLE- SPECIFICATION (ANSI SRL)

Model Number	Lifeline Material and Size	Lifeline Length	Maximum Arresting Force	Maximum Arrest Distance	Comply ANSI Z359.14 Class
RPG10	7X19 Galvanized Steel cable (3/16" dia)	10 ft (3.0 m)	1800 lbs	54 inches (1372 mm)	B
RPG10	7X19 Galvanized Steel cable (3/16" dia)	10 ft (3.0 m)	1800 lbs	54 inches (1372 mm)	B
RPG15	7X19 Galvanized Steel cable (3/16" dia)	15 ft (4.5 m)	1800 lbs	54 inches (1372 mm)	B
RPG20	7X19 Galvanized Steel cable (3/16" dia)	20 ft (6.0 m)	1800 lbs	54 inches (1372 mm)	B
RPG25	7X19 Galvanized Steel cable (3/16" dia)	25 ft (7.6 m)	1800 lbs	54 inches (1372 mm)	B
RPG30	7X19 Galvanized Steel cable (3/16" dia)	30 ft (9.14 m)	1800 lbs	54 inches (1372 mm)	B
RPG40	7X19 Galvanized Steel cable (3/16" dia)	40 ft (12.19 m)	1800 lbs	54 inches (1372 mm)	B
RPG50	7X19 Galvanized Steel cable (3/16" dia)	50 ft (15.2 m)	1800 lbs	54 inches (1372 mm)	B
RPG60	7X19 Galvanized Steel cable (3/16" dia)	60 ft (18 m)	1800 lbs	54 inches (1372 mm)	B
RPG70	7X19 Galvanized Steel cable (3/16" dia)	70 ft (21.33 m)	1800 lbs	54 inches (1372 mm)	B
RPG80	7X19 Galvanized Steel cable (3/16" dia)	80 ft (24 m)	1800 lbs	54 inches (1372 mm)	B
RPG100	7X19 Galvanized Steel cable (3/16" dia)	100 ft (30 m)	1800 lbs	54 inches (1372 mm)	B

RPW06	Polyester Webbing (Black) 1" width	6 ft (1.82 m)	1800 lbs	54 inches (1372 mm)	B
RPW06	Polyester Webbing (Black) 1" width	6 ft (1.82 m)	1800 lbs	54 inches (1372 mm)	B
RPW11	Polyester Webbing (Black) 1" width	11 ft (3.35 m)	1800 lbs	54 inches (1372 mm)	B
RPW11	Polyester Webbing (Black) 1" width	11 ft (3.35 m)	1800 lbs	54 inches (1372 mm)	B
RPW15	Polyester Webbing (Black) 1" width	15 ft (4.5 m)	1800 lbs	54 inches (1372 mm)	B
RPW20	Polyester Webbing (Black) 1" width	20 ft (6 m)	1800 lbs	54 inches (1372 mm)	B
RPW25	Polyester Webbing (Black) 1" width	25 ft (7.6 m)	1800 lbs	54 inches (1372 mm)	B
RPW30	Polyester Webbing (Black) 1" width	30 ft (9.14 m)	1800 lbs	54 inches (1372 mm)	B
RPW40	Polyester Webbing (Black) 1" width	40 ft (12.19 m)	1800 lbs	54 inches (1372 mm)	B
RPW08	Polyester Webbing (Black) 1.85" width	8 ft (2.43 m)	1800 lbs	54 inches (1372 mm)	B
RPW08	Polyester Webbing (Black) 1.85" width	8 ft (2.43 m)	1800 lbs	54 inches (1372 mm)	B
RAW062R	Polyester Webbing (Black) 1" width	6 ft (1.82 m)	1800 lbs	54 inches (1372 mm)	B
RAG15	7X19 Galvanized Steel cable (3/16" dia)	15 ft (4.5 m)	1800 lbs	54 inches (1372 mm)	B
RAG20	7X19 Galvanized Steel cable (3/16" dia)	20 ft (6 m)	1800 lbs	54 inches (1372 mm)	B
RAG25	7X19 Galvanized Steel cable (3/16" dia)	25 ft (7.6 m)	1800 lbs	54 inches (1372 mm)	B
RAG30	7X19 Galvanized Steel cable (3/16" dia)	30 ft (9.14 m)	1800 lbs	54 inches (1372 mm)	B
RAG40	7X19 Galvanized Steel cable (3/16" dia)	40 ft (12.19m)	1800 lbs	54 inches (1372 mm)	B
RAG50	7X19 Galvanized Steel cable (3/16" dia)	50 ft (15.2 m)	1800 lbs	54 inches (1372 mm)	B
RAG60	7X19 Galvanized Steel cable (3/16" dia)	60 ft (18 m)	1800 lbs	54 inches (1372 mm)	B
RAW15	Polyester Webbing (Black) 1" width	15 ft (4.5 m)	1800 lbs	54 inches (1372 mm)	B
RAW20	Polyester Webbing (Black) 1" width	20 ft (6 m)	1800 lbs	54 inches (1372 mm)	B
RAW25	Polyester Webbing (Black) 1" width	25 ft (7.6 m)	1800 lbs	54 inches (1372 mm)	B

RAW30	Polyester Webbing (Black) 1" width	30 ft (9.14 m)	1800 lbs	54 inches (1372 mm)	B
RAW40	Polyester Webbing (Black) 1" width	40 ft (12.19m)	1800 lbs	54 inches (1372 mm)	B
MIT061S	Technora Webbing (Black) 0.8" width	6 ft (1.83m)	1800 lbs	24 inches (609 mm)	A
RPW061CA RPW061R RPW061S	Technora Webbing (Black) 0.8" width	6 ft (1.83m)	1800 lbs	24 inches (609 mm)	A

FRONTLINE introduces Armor range of SRL's specially meant for the toughest & harsh environments. The heavy duty sealed design, corrosion resistant material used in the SRL keeps the critical working components free of dirt, grease, water & chemicals.

Best suited for OIL & GAS Industries & offshore. Sealed Design meets IP68 level of IEC 60529 for ingress protection against Dust and water.

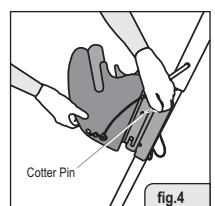
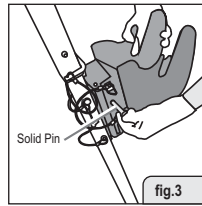
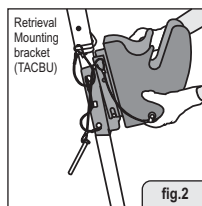
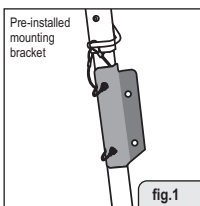
LIST OF RETRIEVAL TYPE RETRACTABLE FALL ARREST SRL'S					
Model Number	Lifeline Material and Size	Lifeline Length	Maximum Arresting Force	Maximum Arrest Distance	Comply ANSI Z359.14 Class
RPG30RE	7X19 Galvanized Steel cable (3/16" dia)	30 ft (9 m)	1800 lbs	54 inches (1372 mm)	B
RPG603W	7X19 Galvanized Steel cable (3/16" dia)	60 ft (18 m)	1800 lbs	54 inches (1372 mm)	B
RPG80RE	7X19 Galvanized Steel cable (3/16" dia)	80 ft (24.34 m)	1800 lbs	54 inches (1372 mm)	B
RPG1003W	7X19 Galvanized Steel cable (3/16" dia)	100 ft (30 m)	1800 lbs	54 inches (1372 mm)	B

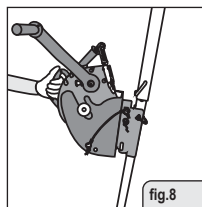
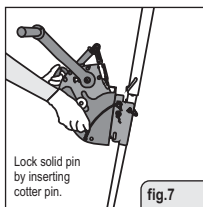
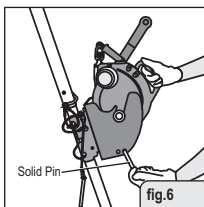
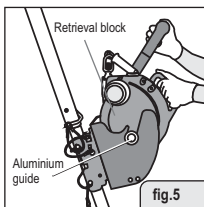
- 1. INTRODUCTION TO RETRIEVAL TYPE FALL ARRESTER LIFELINE:** FRONTLINE introduces the Retrieval Fall Arrester SRL in Polymer casing which is coupled with hoisting winch to enable easy retrieval of a victim of a Fall. The SRL allows the fall to arrest and also allows easy hoist of the victim with help of its hoist function.

The Locking Pin on the side of the casing at the base of the handle allows this dual system to work in independent Fall Arrest & Winch modes.

It can be easily mounted on the leg of FRONTLINE Megapod (Ref. TAN07, TAN10) using universal mounting bracket for Retrieval SRL's.

- 2. INSTALLATION:** Follow step-1 to step-4 install this equipment:-





- Step 1:** Install the base of universal mounting bracket on Megapod with help of two pins and lock them with the cotter pin.
- Step 2:** Mount Retrieval SRL on the bracket by inserting the guided pulley's of Retrieval SRL into the Recess provided in the bracket.
- Step 3:** Now insert the locking pin into the bush of bracket and tight it to the fullest.
- Step 4:** Reel out the wire and guide it through the pulley of Megapod and connect to the Dorsal D-ring of the of the user's harness.

LIST OF RETRIEVAL TYPE LEADING EDGE FALL ARREST SRL'S			
Model Number	Lifeline Material and Size	Lifeline Length	Weight
RPG10LE	7X19 Galvanized Steel cable (7/32" dia)	10 ft (3.04 m)	5.2 lbs
RPG18LE	7X19 Galvanized Steel cable (7/32" dia)	18 ft (5.48 m)	7.5 lbs
RPG25LE	7X19 Galvanized Steel cable (7/32" dia)	25 ft (7.62 m)	9.0 lbs
RPG50LE	7X19 Galvanized Steel cable (7/32" dia)	50 ft (15.24 m)	16.8 lbs
RPG80LE	7X19 Galvanized Steel cable (7/32" dia)	80 ft (24.38 m)	30.5 lbs

- 3. INTRODUCTION TO LEADING EDGE SELF RETRACTABLE LIFELINE:** Each SRL in this range is constructed in such a way that if subjected to contact with a sharp edge in the event of a fall from a roof/ terrace etc, the retracted lanyard remains intact, while arresting the fall immediately.
- Conforms for the vertical usage as per ANSI Z 359.14-2014 and Horizontal usage as per ANSI Z 359.14-2014 SRL-LE
- Connect the end of Lifeline, adjacent to Energy Absorber, to the dorsal attachment of the body support.
 - LE range of SRL's are tested and suitable to be used on edges having radii not greater than 0.005".

4. POSSIBLE USAGE FOR ELECTRON RETRACTABLE FALL ARRESTER:

* It can be used where the Anchorage point is available at foot Level also. (Refer fig 01)

How to Use: Follow below steps to use this equipment as single or double Lanyard. (Refer fig 02)

STEP 1: Connect the swivel eye of the retractable fall arrester to the dorsal attachment of the full body harness with the help of special connector PN 170 and PN 169 & ensure the connector is locked.

STEP 2: Now connect the snap/scaffold hook at the termination end of the device to the structure and ensure that it is locked. You are now safe to move in normal speed. In the event of a fall, the Retractable Fall Arrester locks & also minimizes the impact forces on the body of user.

Similarly, it can be used where the anchorage point is available at foot level by just connecting the swivel eye of the retractable to the anchorage point and the hook at termination to the dorsal attachment of harness.



Fig 01



Fig 02

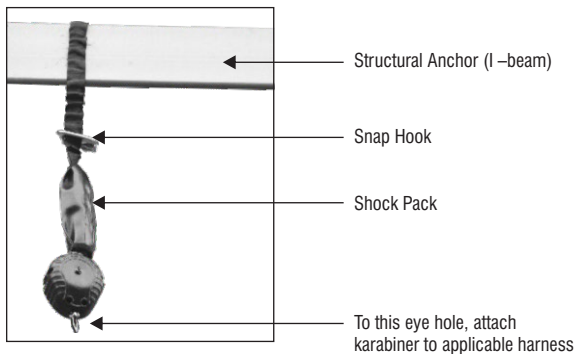
3. **HOW TO USE ELECTRON AS TIE-BACK:** FRONTLINE Electron with Tie-back hook should be used with the SRL casing attached to the Dorsal D-ring of the full body harness, and the extended webbing (with a sheath) wrapped around the anchorage structure, and the Tie-back hook secured around the webbing.

WARNING:

- **NEVER use Electron Tie Back SRL in Leading Edge (LE) applications.**
- **ALWAYS avoid lifeline contact with sharp or abrasive edges and surfaces.**
- **For Tie – Back application, snap hook must only be attached to webbing below shock pack. NEVER attach snap hook between housing and shock pack.**
- **No Free Fall is allowed**

Installation and use

- Ensure that the structural anchor to which Electron Tie-Back SRL is to be attached, and on which work is to be performed, is free of all hazards, including, but not limited to, debris, rot, rust, sharp or abrasive edges and surfaces, and hazardous materials.
- Wrap Tie- Back SRL lifeline around selected structural anchor, and attach snap hook on to webbing below shock pack (Never attach snap hook between housing and shock pack). Attach Electron Tie-back karabiner to applicable harness D-ring.



WARNING:

If the Electron with rebar hook configuration is used, then the rebar hook should always be connected to the anchorage structure, and NEVER to the dorsal D-ring of the full body harness. And the Electron casing should always be worn at the harness end. A competent person must always ensure compatibility of the anchorage structure with the Electron.

5. **GENERAL REQUIREMENTS, WARNINGS AND LIMITATIONS:**

- The Equipment is designed for use as a part of a personal fall protection system. Components must not be used for any other operation other than that which it has been designed and approved. Fall Arrest system are designed to comply with OSHA. Fall Restraint System must be designed by a Qualified Person, and must be installed and used under the supervision of a competent person.
- All authorized persons/users must refer the regulations governing occupational safety, as well as applicable ANSI or CSA standards. Please refer to product labeling for information on specific OSHA regulations, ANSI and CSA standards met by product.
- Proper precautions should always be taken to remove any obstructions, debris, material, or other recognized hazards from the work area that could cause injuries or interfere the operations of the system. All equipment must be inspected before each use according to the manufacturer's instructions. All equipment should be inspected by a qualified person on a regular basis.
- To minimize the potential for accidental disengagement, a competent person must ensure system compatibility.
- Equipment must not be altered in any way. Repairs must be performed only by the manufacturer, or persons or entities authorized in writing by the manufacturer.

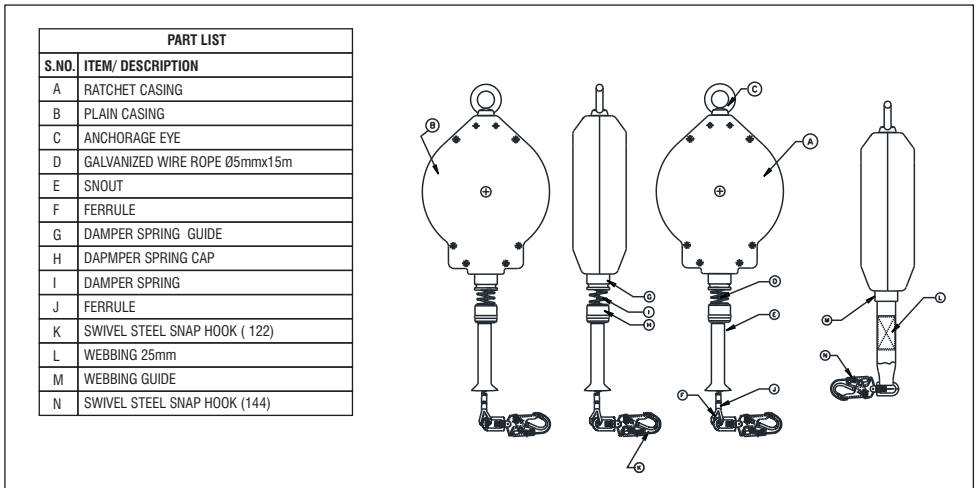
- Any product exhibiting deformities, unusual wear, or deterioration must be immediately discarded. Any equipment subject to a fall must be removed from service. The authorized person/user must have a rescue plan and the means at hand to implement it when using this equipment.
 - Never use fall protection equipment for purposes other than those for which it is designed. Fall protection equipment should never be used for towing or hoisting.
 - All synthetic material must be protected from slag, hot sparks, open flames, or other heat sources. The use of heat resistant materials is recommended in these applications.
 - Never use natural materials (manila, cotton, etc.) as part of a fall protection system.
 - Do not expose this equipment to chemicals which may have a harmful effect on the materials used to construct it. Be especially aware of caustic environment, or those that contain high levels of organic acids or bases. If you are uncertain about the safe operations of this equipment in any environment, contact FRONTLINE for further instructions.
 - Do not use the equipment near sharp edges and abrasive surfaces.
 - Do not use the equipment around moving machinery or electrical hazards.
 - FRONTLINE Self Retractable lifeline should be used only with the combinations of components, sub-systems or both which may not affect or interfere with the safe function of one another. Be certain that connecting devices are compatible and that other elements of the PFAS are safe to use and compatible before use.
6. **TRAINING REQUIREMENTS:** The employer must provide a training program to each employee who might become exposed to fall hazards. The program must enable each employee to recognize the hazards of falling and must train to follow each employee in the procedures in order to minimize these hazards. Relevant Federal, State, and local requirements, procedures, and standards must also be a part of training.
- The employer must 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.
7. **RESCUE PLAN:**The user is required to have a rescue plan and the means at hand to implement the plan when using the equipment.
8. **EQUIPMENT IS SUBJECTED TO A FALL:** Remove the equipment from service immediately if it has been subjected to the force of a fall arrest. Contact your distributor or FRONTLINE about policies regarding replacement of FRONTLINE components involved in a fall incident.
- Inspection:**
- Only the manufacturer of this equipment or persons or entities authorized in writing by the manufacturer must repair the fall protection equipment.
 - The date of first inspection should be recorded by the employer on the equipment, and any serial number must be recorded on the owner's Inspection Log.
 - Formal inspections must be made either by a Competent or a Qualified Person on (at least) a semi-annual basis.
- Prior To Each Use:**
- Fall protection equipment must be inspected by the user for defects, damage, or deterioration.
 - Any suspected defective equipment must be removed from service immediately.
 - If the manufacturer's label is not legible or is missing, the equipment must be removed from service.
 - Fall protection equipment must be removed from service upon evidence of defects, damage, or deterioration, or upon expiration of the manufacturer's specified service limits, whichever comes first.
9. **MAINTENANCE, CLEANING, AND STORAGE:** Repairs to equipment must be administered only by a FRONTLINE representative or person or entity authorized by FRONTLINE. Contact FRONTLINE to request equipment maintenance and/or repair. Cleaning after use is important for maintaining the safety and life of the equipment. Clean the equipment of all dirt, corrosives, and contaminants. If the equipment cannot simply be wiped clean use a mild soap and water. Rinse, wipe, and hang to dry. Store equipment where it cannot be affected by heat, light, excessive moisture, oil, chemicals, or other degrading elements.

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 and minors must not use any FRONTLINE Fall Protection equipment.

10. DESCRIPTION OF PRODUCT:

Retractable: All FRONTLINE Retractable are hereby referred to as Self Retracting Lifelines (SRL). The device is used to safely expand the working area where a harness with a 6 ft. lanyard is not adequate. Also, a SRL is designed to reduce the shock loading to the body of a worker by limiting the distance of a fall. The device allows for complete freedom of movement. This product is to be used as part of a complete fall arrest system. PFAS normally include the use of a full body harness, anchorage connector such as a carabiner and the SRL.

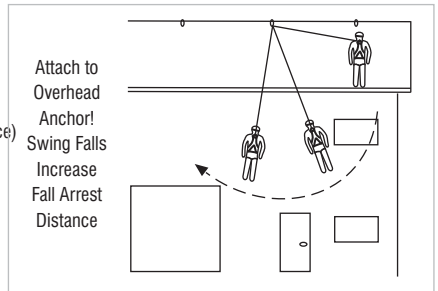


FRONTLINE Self Retracting Lifeline: Includes a swivel eye anchorage, self-locking swivel snap hook with impact indicator, and 3/16" galvanized wire cable/1" Polyester Webbing. SRL also comes with a Karabiners and tag line to be used with the device to avoid improper use.

11. **PRODUCT APPLICATION INFORMATION:** The SRL is used in a stationary or mobile manner. As a stationary device, the SRL would be mounted to an approved fixed anchorage connector directly overhead. The SRL would extend as the user moves away from the anchor point and it retracts as the user moves back towards the anchorage point. As the SRL is used in a mobile manner, the device should be traveling on a steel cable, rope or fixed rail traveling from one anchorage connector to the other.
12. **LIMITATIONS:** Consider the following application limitations before using this equipment.
 - **Capacity:** The SRL is to be used by an individual with a combined weight (person, clothing, tool, etc.) of 90 lbs.(41 kg) minimum and no more than 310 lbs.(140 kg) maximum. No more than one person may be connected at one time.
 - **Corrosion:** Leaving the SRL 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. when using in such environment the product 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 SRL.
 - **Chemical Hazards and Heat:** Extreme caution must be taken when working in or around environments containing acid or caustic chemicals, particularly at elevated temperatures. Damage will result to 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. Additionally, this SRL is not to be used in high temperature environments. The SRL must be protected when using near welding, metal cutting, or similar activities. Hot sparks and slag can damage this equipment. Users must inspect SRL prior to each use.
 - **Electrical Hazards:** For web and wire rope models, there is a 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 may contact high voltage power line.
 - **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. Extreme caution should be taken when working on low pitched roofs, where a worker may slide instead of fall. A clear path is required to ensure positive locking of the SRL.

Considers when calculating distance:

- Distance of Deceleration
- Movement of harness attachment element (D-ring)
- Free Fall Distance
- Worker Height (Worker's height could affect the free fall distance)
- Elevation of Anchorage Connector
- Lengths of Connecting Subsystems



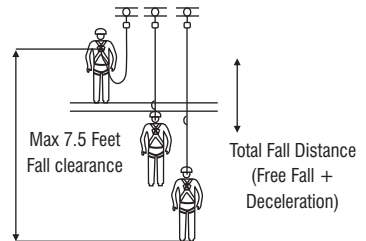
13. LIMITATIONS CONTINUED:

- **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 a swing fall by working as close to the anchorage point as possible. Do not permit a swing fall if injury could occur. Swing fall 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.

14. APPLICABLE STANDARDS: Refer to potential applicable standards. Standards might include OSHA regulations depending on the type of work, and also might include state regulations where applicable. Consult regulatory agencies for more information on personal fall arrest system and associated components. This product is designed to comply with OSHA and ANSI Z359.14 standards when used properly, and in accordance with manufacturer's instructions.

15. SYSTEM REQUIREMENTS:

- **Compatibility of Components:** FRONTLINE Fall Protection equipment is designed to be used with FRONTLINE approved components. Please contact FRONTLINE if you have a question regarding compatibility. Making substitutions without approval from FRONTLINE Protection may lead to injuries and or death by compromising the safety and reliability of any component or that of the complete system. A qualified and competent person can make a determination on compatibility of equipment from different manufacturers. If in doubt, please contact FRONTLINE 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 Karabiners 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 FRONTLINE Fall Protection equipment. Do not use equipment that is not compatible. If you have any questions on compatibility, please contact FRONTLINE.

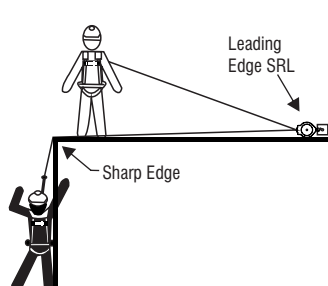


WARNING:

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.

- **Leading Edge Clear Fall**

- The “arrest distance” experienced through testing, internally or externally is indeed 120”, then clear fall requirement would be 18ft, calculated and measured as follows:
 - **120”** -arrest distance measured from walking/working surface to the hook attachment point to the test weight.
 - **60”** -Distance that needs to be added for the length of an average worker measured from d-ring to feet.
 - **36”** -3ft safety factor to include D-ring slide/harness give and buffer to ground below.
 - **216”**-(18ft) required clear fall as measured from the walking/working surface to the nearest obstruction/ground below.
- Therefore, for all SRD-LE's, we need to make clear that “clear fall” is measured from the walking/working surface to nearest obstruction/ground below.



- **Standard SRL (When Used Vertically) Clear Fall Issue**

- **Type A**
 - **24”** – Maximum Arrest Distance
 - **36”** 3ft safety factor to include D-ring slide/harness give and buffer to ground below.
 - **60”** (5ft) required clear fall as measured from the walking/working surface to the nearest obstruction/ground below
- **Type B**
 - **54”** – Maximum Arrest Distance
 - **36”** 3ft safety factor to include D-ring slide/harness give and buffer to ground below.
 - **96”** (7.5ft) required clear fall as measured from the walking/working surface to the nearest obstruction/ground below

16. 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 FRONTLINE 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.

17. OPERATION, USE AND PLAN:

- **Anchorage:** The anchorage to which the SRL is attached must sustain static loads applied in the directions permitted by the fall arrest system of at least 3,600 lbs. with certification of a qualified person, or 5,000 lbs. without certification. Refer to OSHA and ANSI for specific definition. This device is only to be used by one person. When more than one personal fall arrest system is attached to the same structure, the strength requirements stated above must be multiplied by the number of personal fall arrest systems attached to the structure.
- **Horizontal Systems and Tripods:** In applications where the SRL is used in conjunction with a horizontal system or with Megapod, ensure the support structure and or the horizontal system components are compatible.
- Horizontal systems must be designed and installed under the supervision of a qualified engineer.
- **Anchorage Selection:** Select an anchorage point capable of support is at least 5,000 lbs. Additionally, select a location for anchorage of the SRL that will avoid a free fall and swing fall hazards. To prevent an increased free fall distance, do not work above the anchorage location.
- **Free Fall:** Avoid slack in the line and do not lengthen the SRL by connecting a lanyard or other snap hooks directly to the retractable.
- Do not use this device at or below your feet. This will increase your free fall distance beyond the allowable limits set by OSHA and exceed the capabilities of the SRL to safely arrest a fall
- **Swing Falls:** Swing fall will occur when the anchorage point is not directly over the head of the worker or directly above the point where a fall occurs. The force of striking an object in a swing fall may cause serious injury including death. Minimize swing falls by working as directly below the anchorage point as possible. In all situations where a swing fall can occur, the likelihood of an injury can occur. Please contact FRONTLINE Fall Protection if you have questions on a particular application involving one of our retractable.
- **Fall Clearance:** Ensure that there is always adequate clearance in the path of a fall to avoid striking an object or lower level. A minimum of six feet from the working level to the lower level or nearest obstruction is recommended as long as the SRL is attached directly over head of the worker and the worker is not in danger of insult as a result of a swing fall hazard.
- **Sharp Edges:** Unprotected and sharp edges can damage the lifeline. Please make sure to avoid working where this can occur and provide protection where possible. A FRONTLINE manufactured energy absorbing device can be added to aid in reducing the impact forces on the entire device. For more details contact FRONTLINE.

18. INSPECTION OF SELF RETRACTING LIFELINES:

- **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. Record the inspection results in the inspection and maintenance log at the end of this manual. OSHA 1910.66, OSHA 1926.502 and ANSI Z359.14 requires an inspection of equipment before each use. Before using this equipment, record the serial number information from the label in the inspection and maintenance log at the end of this manual.
- **Annually:** ANSI requires a formal inspection of the SRL be completed by a competent person other than the user at least twice a year. More formal and frequent inspections may be required based upon the severity and environmental conditions of the workplace. FRONTLINE Retractable, unless otherwise marked, are required to be recertified every two years from the date of first use.

WARNING:

If inspection reveals an unsafe or defective condition, remove the product from service and send product back to FRONTLINE authorized service center.

- **After a Fall Arrest:** Inspect the impact indicator on the snap hook of the SRL and look for an exposed red color band. Do not attempt to reset the impact indicator. Remove the retractable from service immediately and return to FRONTLINE or an authorized repair center. If using a retractable with a webbed lifeline, then inspection of the shock pack is required. Remove retractable from service if there are any deformation, elongation or other signs of the shock pack being torn or deployed. If inspection reveals an unsafe condition, remove unit from service immediately and destroy, or contact an authorized service center for repair.

- **Inspecting The Self Retracting Lifeline:**

- STEP 1:** Inspect for loose screws and bent or damaged parts.
- STEP 2:** Inspect housing for distortion, cracks or other damage Ensure the swivel eye is not damaged or distorted in anyway. Make sure the swivel eye turns freely.
- STEP 3:** The lifeline must fully extend and retract without hesitation or creating a slack line condition.
- STEP 4:** Ensure the device locks up when lifeline is jerked sharply.
- STEP 5:** Ensure 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:** Wire rope inspection must include identifying cut kinks, broken wires, bird-caging, corrosion, welding splatter, chemical damage, or severely abraded areas. Check all thimbles etc... for excessive wear including cracks or separation of metal components.
- STEP 8:** Webbed lifeline inspection must include identifying frayed strands, broken webbing, burns, cuts, and abrasions. Inspect for excessive heat, paint build-up, soiling rust, or chemical damage indicated by brown or discolored areas.
- STEP 9:** Inspect connecting hooks or Karabiners for signs of damage, corrosion or excessive wear.
- STEP 10:** Record inspection results in the inspection and maintenance log found in this manual. Clearly check off month the SRL was inspected on the label of the housing.

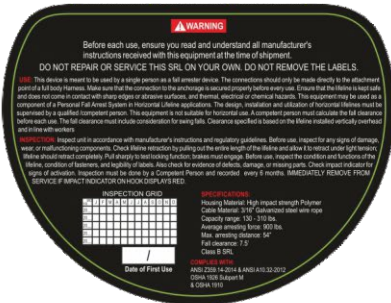


19. CABLE INSPECTION: When inspecting SRL's that utilize cable lifelines, it is critical to look for the following damages and deterioration that will result in malfunction of the unit and potentially unsafe conditions.

- **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 FRONTLINE or authorized repair center.
- **Cutting:** Movement over sharp edges or other objects while the cable is under tension results in damaged strands and broken wires. If, through inspection of the retractable lifeline prior to each use, it is found to have any broken strand, immediately remove from service and return to FRONTLINE or an authorized repair center.
- **Abrasion:** Abrasion can result from normal wear. Particular attention must be paid to the outer wire strands as they with each use, it is found have damage or deterioration from abrasion, immediately remove from service and return to FRONTLINE 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 FRONTLINE 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.

20. 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.



WARNING::

- To maintain the longevity of the self-retractable blocks, FRONTLINE strongly recommends to get them serviced at a FRONTLINE Authorized Service Centre only. If not, FRONTLINE shall not be liable for any warranty claims.
- Alteration or misuse of this product or failure to follow instructions may lead to serious injury or even death.

LIFESPAN: The estimated product Lifespan is 10 years from the date of manufacturing. The following factors can reduce the Lifespan of the product: intense use, contact with chemical substances, specially aggressive environment, extreme temperature exposure, UV exposure, abrasion, cuts, violent impacts, bad use or maintenance.

DISCLAIMERS: This information on the product is based upon technical data that FRONTLINE obtained under laboratory conditions and believes to be reliable. FRONTLINE does not guarantee results and take no liability or obligation in connection with this information. As conditions of end use are beyond our control it is the user's responsibility to determine the hazard levels and the use of proper personal protective equipment. Persons having technical expertise should undertake evaluation under their own specific end-use conditions, at their own discretion and risk. Please ensure that this information is only used to check that the product selected is suitable for the intended use. Any product that is damaged, torn worn or punctured should be discontinued from usage immediately.

EQUIPMENT RECORD

Product		
Model & type/identification	Trade Name	Identification number
Manufacturer	Address	Tel, fax, email into use
Year of manufacture	Purchase Date	Date first put into use
Other relevant information (e.g. document number)		

PERIODIC EXAMINATION AND REPAIR HISTORY

Date	Reason for entry (periodic examination or repair)	Defects noted, repairs carried out and other relevant information	Name and signature of competent person	Periodic examination next due date

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