

## ANCHORAGE WIRE ROPE SLINGS

This instruction manual  
applies to the following models:

MPW04, MPW06

## ANCHORAGE WIRE ROPE SLINGS INSTRUCTIONS

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.

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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 and OSHA . The user must fully understand the proper equipment use and limitations.

S.No.	Reference no.	Material of Construction	Minimum Breaking strength	Conformity
1	MPW04	Made of (5/16") Galvanized PVC Coated Wire Rope	5000 lbs.	ANSI Z359.18-2017
2	MPW06	Made of (5/16") Galvanized PVC Coated Wire Rope	5000 lbs.	ANSI Z359.18-2017

- 1. GENERAL REQUIREMENTS, WARNINGS AND LIMITATIONS:** These Equipment are 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 standards. Please refer to product labeling for information on specific OSHA regulations, and ANSI 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 Anchorage Wire Rope Slings 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 Personal Fall Arrest System (PFAS) are safe to use and compatible before use.

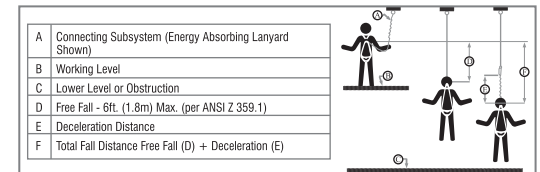
## 2. SYSTEM LIMITATIONS & REQUIREMENTS:

Consider the following limitations/requirements prior to installing or using this equipment:

**CAPACITY:** FRONTLINE Anchorage Wire Rope Slings are designed for use by single user 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. All FRONTLINE Anchorage Wire Rope Slings are rated 5000lbs.

**FREE FALL:** Personal Fall Arrest System (PFAS)s 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.



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.

**HOW TO DISPOSE A LANYARD:**

When the lanyard becomes unfits or in case of any wear and tear, dispose the lanyard immediately.

**FOLLOW THE STEPS FOR DISPOSAL:**

- Make the three plastic crates namely- Textile, Metal & Plastic for placing the respective components of the lanyard.
- Spread the lanyard on a table / flat surface.
- Inspect the wear & tear present on the lanyard.
- If any wear and tear is observed, dispose the lanyard using a sharp scissor; first cut the Textile and dismantle the lanyard.
- Put the Textile, Plastic & Metal components in their respective plastic crates.

**NOTE**

Do not attempt to disassemble the unit or make repairs to the equipment. Send the equipment back to the manufacturer, or persons or entities authorized in writing by the manufacturer to make repairs to the equipment.

Lifespan: The estimated product Lifespan is 5 years from the date of first use. The following factors can reduce the Lifespan of the product: intense use, contact with chemical substances, especially aggressive environments, extreme temperature exposure, UV exposure, abrasions, cuts, violent impacts, bad use or maintenance.

Disclaimer: Prior to use, the end user, must read and understand the manufacturer's instructions supplied with this product at the time of shipment and seek training from their employer's trained personnel on the proper usage of the product. Manufacturer is not liable or responsible for any loss, damage or injury caused or incurred by any person on grounds of improper usage or installation of this product.

**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.

**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 wire rope attachment extension) or to the chest anchorage points ("wire rope 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.

**ANCHORAGE STRENGTH:** The anchorage strength required is dependent on the application type. The following are the requirements of ANSI 359.1 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 at least: 1. 5,000 lbs. (23 kN) 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. (23 kN) per user attached, or be designed, installed and used as part of a complete Personal Fall Arrest System (PFAS) which maintains a safety factor of at least two, and is under the supervision of a qualified person.

**LABEL**

**FRONTLINE**  
FALL PROTECTION

**Anchorage Wire Rope Sling**  
Part: # MPW04  
Batch No.: XXXXX  
Serial No.: XXXXX

Minimum Breaking Strength: 5000 lbs.  
Service Temperature: -30°F to 130°F (-34°C to 54°C)  
Complies with ANSI Z359.18-2017 Type A

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DOM:

Maximum 1 connection per Anchorage Wire Rope Sling.  
Material: Galvanized Steel.  
Capacity range: 130-310 lbs.  
**Should always be used with compatible equipment.  
Only make compatible connections.**

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**WARNING:**  
Ensure manufacturer's instructions received at time of shipment are followed at all times for proper use, maintenance, and inspection. Any alteration, abuse or misuse of this product may result in serious injury or death. Avoid contact with sharp edges and abrasive surfaces. Avoid contact with all hazards including, but not limited to, electricity, chemicals and heat.  
**ANY ALTERATION, ABUSE OR MISUSE OF THIS PRODUCT VOIDS THE WARRANTY.**

**DO NOT REMOVE THIS LABEL**

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Inspection: Before every use, user must inspect the product. Every 6 months a competent person must complete final inspection of the product and record initials.

**FRONTLINE**  
FALL PROTECTION

**Anchorage Wire Rope Sling**  
Part: # MPW06  
Batch No.: XXXXX  
Serial No.: XXXXX

Minimum Breaking Strength: 5000 lbs.  
Service Temperature: -30°F to 130°F (-34°C to 54°C)  
Complies with ANSI Z359.18-2017 Type A

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DOM:

Maximum 1 connection per Anchorage Wire Rope Sling.  
Material: Galvanized Steel.  
Capacity range: 130-310 lbs.  
**Should always be used with compatible equipment.  
Only make compatible connections.**

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**WARNING:**  
Ensure manufacturer's instructions received at time of shipment are followed at all times for proper use, maintenance, and inspection. Any alteration, abuse or misuse of this product may result in serious injury or death. Avoid contact with sharp edges and abrasive surfaces. Avoid contact with all hazards including, but not limited to, electricity, chemicals and heat.  
**ANY ALTERATION, ABUSE OR MISUSE OF THIS PRODUCT VOIDS THE WARRANTY.**

**DO NOT REMOVE THIS LABEL**

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Inspection: Before every use, user must inspect the product. Every 6 months a competent person must complete final inspection of the product and record initials.

ANCHORAGE & ANCHORAGE STRENGTH : Anchorage and anchorage strength requirements are dependent on the full body harness application (see Figure 3). In accordance with ANSI Z3559.1, anchorages selected for fall Arrest Systems must meet the anchorage strength requirements defined in Table 2.

Table 2 - Anchorage Strength Requirements		
Fall Arrest <sup>1</sup>	Non-Certified Anchorage:	5,000lbs (23 kN)
	Certified Anchorage <sup>2</sup>	2 Times the Maximum Arresting Force for Certified Anchorage
Restraint <sup>1</sup>	Non-Certified Anchorage	1,000 (4.5 kN)
	Certified Anchorages <sup>2</sup>	2 times the foreseeable force for certified anchorages.
Work Positioning <sup>1</sup>	Non-Certified Anchorages	3,000 lbs (13.3 kN)
	Certified Anchorage <sup>2</sup>	2 times the foreseeable force for certified anchorage.
Rescue <sup>1</sup>	Non-Certified Anchorage	3,000 lbs (13.3 kN)
	Certified Anchorage <sup>2</sup>	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 ca-able of supporting the potential fall force that meet the criteria for a certified anchorage prescribed in this standard.

- **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

anchorage, 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.

**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 preferably every six months or at least annually 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, corrosion etc.

#### INSTALLATION OF FRONTLINE WIRE ROPE ANCHORAGE EXTENDER

(Models: MPW04, MPW06)

**Step 1:** Select an overhead anchorage point. This point should be compatible to make connection with the snap hook of the wire rope extender. Connect the snap hook of the extender to this anchorage point.

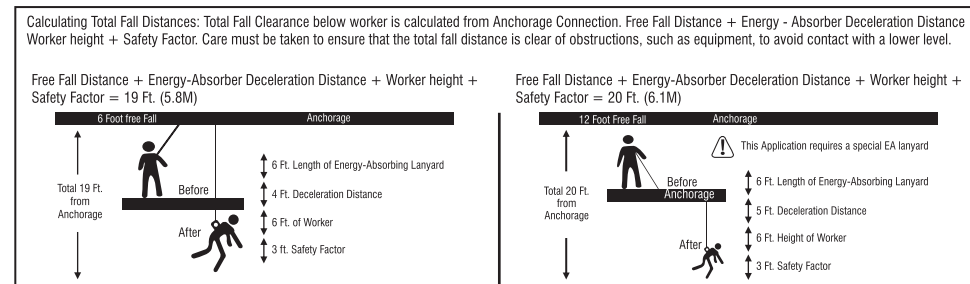
**Step 2:** Allow the extender to hang vertically. Now use the O-ring at the termination of the Extender to connect to the personal fall arrest system.

#### ▲ WARNING

The free fall distance may get extended because of the use of the anchorage extender. Hence, th anchorage extender should always be connected making sure that the O-ring of the extender lies overhead the user. This helps the free fall distance to be kept to a minimum.



**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 shockabsorbing lanyard, check that there is sufficient fall clearance below the user to prevent any collision with the structure or the ground. With a weight of 220 lbs and a fall factor of two (the least favorable case), the fall clearance D is the stopping distance H (2L+5.74 ft) plus an additional distance of 3.28 ft.



**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.

#### 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 by compromising the safety and reliability of the complete system. 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 5,000lbs. (23kN). 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 karabiners with any FRONTLINE Fall Protection equipment. Do not use equipment that is not compatible.

#### 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 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