



USER INSTRUCTION MANUAL WORK POSITIONING LANYARDS

THESE INSTRUCTIONS APPLY TO THE FOLLOWING MODELS: UFL205201, UFL205211, UFL205251, UFL205202, UFL205215,



UFL205401, UFX903010 UFL205201(02) AND UFL205201(03)

K⁺STRONG[®]

This manufacturer's user instruction manual meets the requirements of ANSI Z359.3-2017. As per OSHA, this manual should be used as a part of an employee training program.

WARNING

The products enumerated in this instruction manual are a part of a Work Positioning System. It is important that the user reads and follows the manufacturer's instructions for each component of the system. This manual contains information which is important to your safety and should be kept in a safe place for future reference as needed. The instructions provided in this manual are meant for the use of this equipment and should be read thoroughly and understood by the user before the equipment is used. Manufacturer's instructions must be properly followed for the correct use and maintenance of this equipment. Please contact KStrong for any questions regarding use of this equipment.

WARNING

This equipment is meant only for work positioning and should never be used for fall arrest. Fall arrest systems are comprised of separate sub-components, which reduce the potential of serious injuries in the event of a fall. Work positioning systems only aid in the positioning of the user at height, so that the user may work at height with both hands free. The fall arrest system is separately connected to the wearer, and is necessary to be used along with a work positioning system, so that complete safety of the user is ensured.

TRAINING

In order to ensure that the user is familiar with the instructions provided in this manual, it becomes the responsibility of the user to undergo proper training on the proper inspection, use and maintenance of this equipment. It is also the employer's responsibility to ensure that all the users are trained in proper use, inspection and maintenance of work positioning and Fall Protection Equipment.

S.No.	KStrong Work Positioning Lanyard/ Device Model	Construction of Webbing	Hardware	Minimum Breaking Strength	Conformity	
1.	UFL205201	Polyester & Nylon	Steel	5000 lbs.	ANSI Z359.3-2017	
2.	UFL205211	Polyester & Nylon	Steel	5000 lbs.	ANSI Z359.3-2017	
3.	UFL205251	Polyester & Nylon	Steel	5000 lbs.	ANSI Z359.3-2017	
4.	UFL205202	Polyester & Nylon	Steel	5000 lbs.	ANSI Z359.3-2017	
5.	UFL205215	Polyester & Nylon	Steel	5000 lbs.	ANSI Z359.3-2017	
6.	UFL205201(02)	Polyester & Nylon	Steel	5000 lbs.	ANSI Z359.3-2017	
7.	UFL205201(03)	Polyester & Nylon	Steel	5000 lbs.	ANSI Z359.3-2017	
S.No.	KStrong Positioning Device Model	Grade of Chain	Hardware	Tensile Strength	Conformity	
1.	UFL205401	Grade 80 (Straight Link)	Steel	5000 lbs.	ANSI Z 359.3-2017	
S.No.	Retrieval Lanyard with Spreader Bar	Construction of Webbing	Hardware	Minimum Breaking Strength	Conformity	
1.	UFX903010	Polyester	Steel	5000 lbs.	ANSI Z 359.3-2017	

TECHNICAL SPECIFICATIONS

IMPORTANT INFORMATION

- It is important to inspect the equipment according to the manufacturer's instructions before each use.
- Inspection of equipment should be conducted on a regular basis by a qualified person, and results must be recorded in the inspection log.
- DO NOT REMOVE product labels which include important warnings and information for the authorized person.
 "Authorized Person" is a person who is exposed to fall hazards during the course of their work. This individual requires formal training in the use of personal fall protection equipment and systems. The term "Authorized Person" may be used interchangeably with "User" and "End-User".
- DO NOTALTER the equipment in any way.
- Always send the equipment back to the manufacturer, or to persons or entities authorized in writing by the manufacturer, for any repairs if required.



- · Never use any natural material like manila, cotton, etc. as part of a Fall Protection System.
- Fall protection equipment should only be used for the purpose for which it has been designed. Work positioning lanyards are not to be used for material handling, and other such activities.
- This equipment should never be used for towing and hoisting or for any other purpose than its intended use.
- · A competent person must ensure compatibility of the system to minimize any potential for accidental disengagement.
- · Authorized persons, or users, shall be trained on all warnings and instructions provided in this manual.
- It is important for all users to refer to the applicable ANSI Standards and to the regulations governing occupational safety.
- Take proper precautions to remove any debris, material, obstructions, etc. from the work area which could cause
 injury, or otherwise interfere with the functioning of the system.
- Keep the equipment away from anything that could damage it such as sharp edges, rough or abrasive surfaces, high temperature surfaces, heat and welding sources, moving machinery, electrical hazards, etc.
- It is important to select Fall Protection Equipment keeping environmental hazards in mind.
- DO NOT expose the equipment to chemicals, highly corrosive or caustic environments or to direct sunlight and UV radiation, which may cause UV degradation.
- Such harmful environments require a more frequent inspection and servicing program of the fall protection
 equipment to maintain the integrity and safety of the equipment. Contact KStrong if in doubt.
- All synthetic material of fall protection equipment must be protected from slag, hot sparks, open flames or other heat sources.
- It is recommended that heat resistance materials are used in such applications. It is important to allow adequate
 fall clearance below the work surface.
- Always have a Rescue Plan ready and at hand when using this equipment. The rescue plan should be provided to an authorized person. The user should also be provided with appropriate training before using the equipment in a situation where a suspension could occur.

WARNING !!

- Immediately discard any product which is exhibiting unusual wear, deformity or deterioration.
- · Immediately remove from service any equipment that has been subjected to a fall.

COMPONENT COMPATIBILITY

Component compatibility with KStrong manufactured fall protection equipment is ensured by strictly following the instructions for each type of equipment used. However, if the fall protection equipment utilizes combinations of components or sub systems that are manufactured by others, then only a "qualified" or "competent" person (as defined in OSHA) can ensure the compatibility. If substitutions or replacements are made with non-approved components of sub systems, then this may severely affect the compatibility of the equipment, making the complete system unsafe for use.

COMPATIBILITY OF CONNECTORS

To ensure the compatibility of the connectors with their connecting element, it is important to safeguard that the sizes and shapes of the connectors and the connecting elements do not allow their gate mechanisms to open inadvertently, notwithstanding their orientation with each other. All hooks, carabiners, D-rings and other such connectors, must be capable of supporting a min. force of 5000 lbs. (23 kN). All connectors must be compatible with all system components like anchorages, etc. Never use equipment that is not compatible as this may cause the connectors to disengage unintentionally. All connectors must be compatible in shape and size. As per ANSI Z359.12 and OSHA, only self-locking snap hooks and carabiners may be used.

CONNECTIONS USING CONNECTORS

Ensure that only self-locking snap hooks and carabiners are used with this equipment. All connections should be compatible in size, shape and strength. The connectors used should be suitable to each application. Ensure that they are fully closed and locked while in use.

NEVER USE INAPPROPRIATE CONNECTIONS

While using KStrong snap hooks and carabiners, they should not be connected as below:

- Two or more connectors should never be attached to a single D-ring.
- Never attach a connector that could result in a load on its gate.
- Connectors should not be connected in a false engagement. It should be visually confirmed that the connector is fully engaged to the anchor point. Avoid conditions that allow for features that protrude from the connectors to catch on the anchor, giving a false sense of being connected.



- Connectors should not be connected to each other.
- Connectors should not be connected directly to the webbing or to the rope lanyard or tie back, unless specifically
 allowed by the manufacturer.
- Connectors should not be connected to any object which does not allow the connector gate to close or lock. Anchor
 shapes that allow roll out to occur should never be used for connection. If the anchor to which the snap hook or the
 carabiner is attached is undersized or irregular in shape, then this may allow for the gate of the connector to come in
 contact with the anchor, thereby causing the connector to open up and possibly disengage from the anchor. This is
 known as roll out of the connector.



• Do not use connectors on an anchorage object as shown in figure G.

WARNING

Large throat opening snap hooks should not be connected to standard size D-rings or similar objects. This is because if the hook or D-ring twists or rotates then this may result in a load on the gate of the connector. Large throat snap hooks are specifically designed for use on fixed structure elements such as rebar or cross members. These are shaped in such a way that they cannot capture the gate of the hook.

IMPORTANT RESTRICTIONS WHILE MAKING CONNECTIONS

- A snap hook should not be connected into a loop or thimble of a wire rope, or attached to it in any way that may slack the wire rope.
- Do not make connections where the connector locking mechanism can come into contact with a structural member, or other such equipment, as it may potentially unlock the connector and release the connection.
- To connect to a single or a pair of soft loops on a harness, a carabiner that can fully close and lock should only be used. Snap hooks are not allowed for such connections.
- A carabiner may be connected to a loop or ring connector that is already occupied by a choker style connector. Snap hooks are not allowed for such connections.

If the connecting element to which a snap hook (shown) or carabiner attaches 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 carabiner. This force may cause the gate (of either a self-locking or a non-locking snap hook) to open, allowing the snap hook or carabiner to disengage from the connecting point.



CONNECTING LOOP OF LANYARD TO HARNESS D-RING

Some lanyards are provided with a web loop at one end and connector at the other end. This web loop is connected to the dorsal attachment D-ring of a harness in the following manner:





CONNECTING SUBSYSTEMS

Use only those connecting subsystems (self-retracting lifeline, lanyard, rope grab and lifeline, cable sleeves) that are suitable for your application. See subsystems manufacturer's instructions for more information. Some harness models have web loop connecting points. Do not use snap hooks to connect to the web loop. Use a self-locking carabiner to connect to a web loop. Ensure the carabiner cannot cross-gate load (load against the gate rather than along the backbone of the carabiner). Sometimes, lanyards may be sewn directly to the web loop forming a permanent connection. Do not make multiple connections onto one web loop.

RESCUE PLAN

A rescue plan should be well documented and be in place before performing work at height. The rescue operation must be performed by trained and competent personnel only. The rescue expert team should supervise the rescue operation performed. It is also advised to work in pairs while working on the site.

ENVIRONMENTAL HAZARDS

It is important to take additional precautions while using this equipment in presence of any environmental hazards so as to prevent injury to the user or damage to the equipment.

Environmental hazards may include the following, but are not limited to:

- Chemicals
- Extreme Temperatures
- · Corrosive Environments
- Gases
- High Voltage Power Lines
- Sharp Edges
- Moving Machinery & Vehicles

Please contact KStrong with any questions regarding the use of this equipment in the presence of any environmental hazard.

WARNING

This equipment is not designed to be used in high temperature environments. It is important to protect this equipment when using near activities like welding or metal cutting. Hot sparks may cause damage to this equipment or burn it. Contact KStrong for details on use of this equipment in high temperature environments.

ANCHORAGE STRENGTH

The application type determines the anchorage strength requirement. As per ANSI Z359.1 the necessary anchorage strength for the following applications are listed below:

- Fall Arrest: As per OSHA 1926.500 & 1910.66: anchorages that are used for attachment of Personnel Fall Arrest Systems (PFAS) shall be independent of any anchorage being used to support or suspend platforms. They should be capable of withstanding a minimum load of 5000 lbs. (23 kN) per user attached or should be designed, installed and used as part of a complete PFAS which maintains a safety factor of at least two. Rating of the anchorage should always be done under the supervision of a qualified person.
- Work Positioning: The structure to which the work positioning system (WPS) is attached must be able to sustain
 a static load of min. 3000 lbs. (13.3 kN), applied in the directions permitted by the work positioning system. Or, it
 should be able to sustain two times the potential impact load, whichever is greater; see 1926.502. However, if
 more than one work positioning system is attached to an anchorage, then the strength mentioned above must be
 multiplied by the number of WPS attached to the anchorage.
- Restraint: The strength requirement of anchorages which are selected for restraint and travel restraint systems is min. of 1000 lbs. (4.5 kN) static load applied in the directions permitted by the system. If more than one restraint and travel restraint system is attached to anchorage, then the 1000 lbs. shall be multiplied by the number of systems attached to the anchorage to determine the minimum strength requirement.
- · Rescue: The minimum strength of the anchorage selected for rescue should be such that it is capable of



sustaining a static load of min. 3000 lbs. (13.3 kN) applied in the direction permitted by the system. To the determine the strength requirement of the anchorage if more than one rescue system is attached, then multiply 3000 lbs. (13.3 kN) by the number of the systems attached to the anchorage.

ALWAYS SELECT THE RIGHT ANCHORAGE

The anchorage selected should be able to withstand the required load of work positioning. The anchorage should be level/horizontal. This prevents the anchorage connector from sliding down the anchorage when in use, which otherwise could cause serious injury to the user.

NEVER WORK AROUND SHARP EDGES

The work positioning lanyard, subsystem or other system subcomponents of the fall protection system, should not be used is such a way that they come in contact with, or abrade against unprotected sharp edges. Also, the lanyard should not be looped around structural members that have a small diameter. Provide protection against sharp edges with a heavy pad, or something similar, to prevent the lanyard from being exposed directly to the sharp edge, if working around the edge cannot be avoided.

PERIODIC EXAMINATION

Always keep the instructions which are provided with the product. Take the information from the markings on the product and enter this information in the identification sheet. To ensure the safety of the user, it is essential to check the condition of the equipment through the periodic examination of the product. This equipment must examined by a qualified person at least once every six months, strictly complying with the manufactures instructions. Also, record the previous check on the attached sheet. If the equipment is in heavy usage or is used in a harsh environment, then the frequency of inspection should be increased in accordance with regulations. Check also that the markings on the product are legible.

ILLUSTRATION OF LANYARD



PURPOSE

KStrong work positioning lanyards and devices are to be used as components of a work positioning system. These lanyards and devices hold and offer support to the user, positioning them for work at height.

CAPACITY

The capacity of the equipment is the total weight of the wearer (including his own weight, and that of his clothes, shoes, tools, etc.) of a maximum 310 lbs. (140 kg).

Free Fall: For a work positioning system, the free fall allowed is a maximum of 2 ft. Hence, this system is not designed to arrest falls that have a free fall of more than this value.

Fall Clearance: There should be sufficient clearance below the user to prevent the user from striking any object or any other obstruction. The type and length of lanyard used, along with location of the anchor point determines the clearance required.

APPLICATION

Work Positioning: A KStrong full body harness along with a KStrong work positioning lanyard or device constitutes a work positioning system. Personal fall arrest system is always used as back up. For work positioning at height, connect

K⁴STRONG[®]

the work positioning lanyard to the belt mounted work positioning attachment anchorage elements (also known as lateral D-rings), or to hip level side D-rings.

Rescue: Retrieval Lanyard with Spreader Bar (UFX903010) is used to retrieve a victim in a rescue, such as confined space rescue and retrieval. No vertical free fall is possible.

INSPECTION OF FALL PROTECTION SYSTEM

It is mandatory to have a detailed visual inspection of all the harnesses, lanyards, connectors etc. prior to each use. This ensures that the equipment is in good condition and is operating correctly. If there are any doubts regarding the safe state of the product or if the product has been used to arrest a fall, then immediately remove the equipment from service and contact KStrong for a qualified authorized repair center. Check on the back-shoulder straps of the harness for the fall indicators, which should be intact. If any are found to be deployed, then the harness should be immediately removed from use. Never attempt to repair or modify a Personal Protective Equipment (PPE).

FORMAL INSPECTION

It is mandatory that a competent person other than the user perform a formal inspection of fall personal protection and its components once at least every six months. This frequency should be altered on the basis of conditions for use or exposure. The inspection results should be recorded in the inspection and maintenance log at the end of this manual.

PRE-INSPECTION CHECK OF THE WORK POSITIONING LANYARDS AND DEVICES

The work positioning lanyards and devices should be inspected prior to each use as per the following guidelines:

- Step 1: Check the lanyard hardware for any damage, break, distortion, sharp edges, burrs, cracks, worn parts or corrosion. Ensure that the connecting hooks are functioning properly. The connector and hook gates must work smoothly, and lock fully upon closing.
- Step 2: Check the webbing of the positioning lanyard for any damaged, frayed or broken fibers, or cuts. Check the entire length of the lanyard on both sides for any discoloration, abrasion, molds, burns, knots, excessive soiling, heavy paint build up and rust staining. The lanyard should be free of all of these. Look out for any brown, discolored or brittle fibers that may result due to chemical or heat damage. Discoloration, presence of slivers or splinters indicates damage due to ultraviolet radiation. The lanyard should not show any signs of fraying, unsplicing, unlaying, kinking, knotting, roping, excessive elongation, chemical attack, excessive soiling, abrasion, alteration, needed or excessive lubrication, excessive aging and excessive wear. Pulled, cut or broken stitches should als be inspected for. Strength of the webbing gets significantly reduced due to all the above damages.
- Step 3: In case of the chain lanyard, examine it carefully for presence of any damage, distortion, sharp edges, worn out links or corrosion.

Step 4: Check that all labels are intact and fully legible.

If Inspection reveals an unsuitable, unsafe condition of the work positioning devices or lanyard, or of any other sub unit of the fall arrest system, then the unit must be immediately removed from further use. Only KStrong and parties who are authorized may conduct repairs to the equipment.



HOW TO USE THE WORK POSITIONING LANYARD

Adjust the lanyard length with the adjuster in order to work comfortably with both hands free.



Connect one end of the work positioning lanyard to the lateral D-ring on the support belt of the wearer's harness on one side. Wrap the lanyard around the anchor structure in front of the wearer (could be a pole or a pillar), taking care that the lanyard does not come in contact with any sharp edges. Connect the other end of the lanyard with its connector to the lateral D-ring on the support belt of the harness on the opposite side.

HOW TO USE WORK POSITIONING DEVICE

Connect the connectors on the two legs of the device, one to each of the lateral D-rings on the support belt of the harness. Now anchor the rebar hook in the center to the rebar structure in the front.

HOW TO USE RETRIEVAL LANYARD WITH SPREADER BAR FOR RESCUE IN CONFINED SPACE

Attach the hooks of the Retrieval Lanyard w/ Spreader Bar with the shoulder loops present on the full body harness of the victim.

Once the hooks are attached perfectly with the shoulder loops, D-Ring present on straps above the spreader bar can be used to rescue the victim by connecting it with Confined Space Rescue System.

WARNING

Never use this system to arrest a fall. Always use a personal fall arrest system with this equipment, as a back up.

MAINTENANCE, SERVICE AND STORAGE

KStrong work positioning lanyards can be cleaned with water and a mild soap solution. However, if a lanyard is
excessively dirty, or there is a build-up of material like paint, etc., then this may hamper the lanyard from
functioning properly. In severe cases, the webbing may be degraded to a point where it weakens. In such a case,
remove the lanyard from service.

Never use bleach or bleach solutions to clean the lanyard as this might damage the webbing. Always dry the lanyard by hanging to air dry. Do not force dry with heat. The positioning devices and the hardware should be wiped off with a clean dry cloth and hung to air dry. Contact KStrong with any questions.

- Additional maintenance and servicing procedures must be completed by an authorized service center.
- Store the work positioning lanyards and devices in a cool dry clean environment, away from direct sunlight. Avoid
 areas where there might be the presence of chemical vapors, heat, excessive moisture, oil or other degrading
 elements. It is extremely important to thoroughly inspect the lanyards after extended storage.
- Equipment in need of or scheduled for maintenance, must be tagged as "unsuitable" and removed from service.

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 10 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.





LABEL

Common Labels









EQUIPMENT RECORD									
Product:									
Model and type/identification		Tra	Trade name		Identification number				
Manufacturer		Address		Tel, fax, email					
Year of manufacture		Pur	Purchase date		Date first put into use				
Other relevan	t information (e.g. Docum	ent n	umber)						
PERIODIC EXAMINATION AND REPAIR HISTORY									
Date	Reason for entry (periodic examination or repair)		Defects noted, repair carried out and other relevant information		Name and signature of competent person	Periodic examination next due date			



KStrong Inc. 150 N. Radnor Chester Road Suite F200 Radnor, Pennsylvania 19087 United States Contact number: 1-833-KSTRONG

www.kstrong.com

_

USA	South America	Asia	