



## USER INSTRUCTION MANUAL

<b>Applicable to</b>	: HLK1004
<b>Manufacturer</b>	: <a href="http://www.frontlinefall.com">www.frontlinefall.com</a>
<b>Certification Body</b>	: SATRA Technology Europe Ltd, Bracetown Business Park, Clonee, Dublin D15 YN2P Ireland (Notified Body 2777)
<b>Ongoing Assessment Body</b>	: SGS United Kingdom Ltd., Unit 202B, Worle Parkway, Weston-super-Mare, BS22 6WA, UNITED KINGDOM. (Notified Body 0120)

**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.

### INTRODUCTION:-

Thank you for purchasing a Frontline Fall Protection 4-Person Rope HLL. This manual must be read and understood in its entirety, and used as part of an employee training program as required by OSHA or any applicable state agency.

This and any other included instructions must be made available to the user of the equipment. The user must understand how to safely and effectively use the 4-Person Rope HLL, and all fall safety equipment used in combination with the 4-Person Rope HLL.

### Applicable Safety Standards

When used according to instruction specifications, this product meets or exceeds **ANSI Z359.1-2007, EN 795:2012 Type C & TS 16415 TYPE C** standards for fall protection. Applicable standards and regulations depend on the type of work being done, and also might include state-specific regulations. Consult regulatory agencies for more information on personal fall arrest systems and associated components.

### Worker Classifications

**Qualified Person:** A person with an accredited degree or certification, and with extensive experience or sufficient professional standing, who is considered proficient in planning and reviewing the conformity of fall protection and rescue systems

**Competent Person:** A highly trained and experienced person who is ASSIGNED BY THE EMPLOYER to be responsible for all elements of a fall safety program, including, but not limited to, its regulation, management, and application. A person who is proficient in identifying existing and predictable fall hazards, and who has the authority to stop work in order to eliminate hazards.

**Authorized Person:** A person who is assigned by their employer to work around or be subject to potential or existing fall hazards

**It is the responsibility of a Qualified or Competent person to supervise the job site and ensure all applicable safety regulations are complied with.**

### IMPORTANT BEFORE INSTALLATION AND USE :-

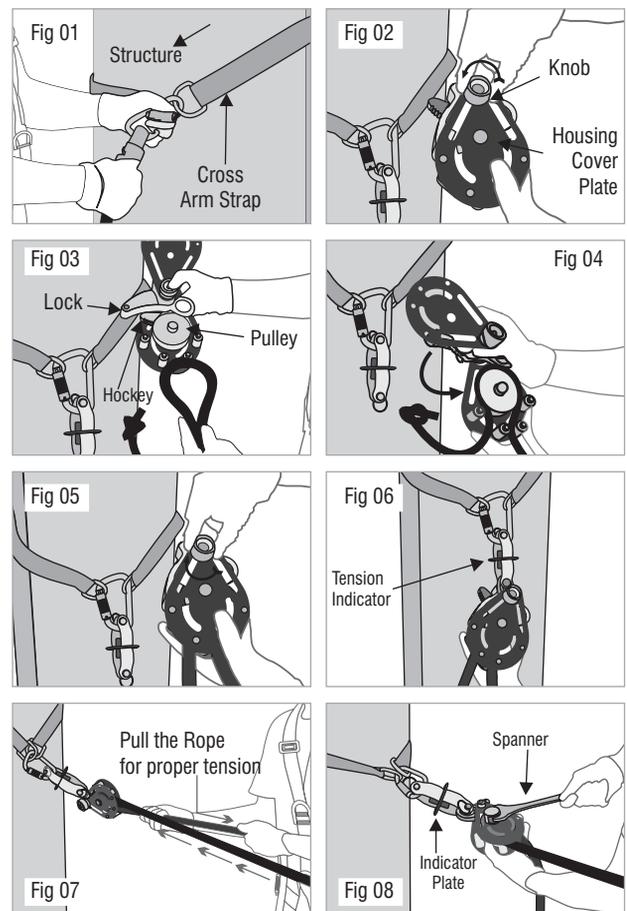
Prior to use, plan your system:

1. Ensure all PFAS equipment is selected and deemed compatible by a Competent Person.
2. Eliminate or minimize all risk of swing fall.
3. Determine desired location for HLL; ensure location is free of debris, rot, decay, cracking, and hazardous materials.
4. Installation, set-up, and use of HLL system must be done under the supervision of a Qualified Person.

### Recommended Maximum Users: 4

### Installation Of Temporary Horizontal Lifeline HLK1004:-

- Step 1: The receiving structure onto which lifeline is to be installed must be strong enough to hold an impact load of more than 5000 lbs. Fig. 01
- Step 2: **Installation of rope into the tensioner:**
- a) Loosen the knob to slide open the housing cover plate. Fig. 02
  - b) Pull back the Hockey and Lock Body so as to create adequate gap to insert rope around the pulley. Please refer attached image for the direction of rope insertion. Fig. 03
  - c) Slide back the cover plate and ensure that hole on cover plates match with spacer on the fixed cover plate. Fig. 04
  - d) Once aligned, re-tighten the knob to the fullest to hold the cover plates in position. Fig. 05
- Step 3: With help of a Carabiner attached to the swivel connector of lifeline connect the rope to a suitable anchorage point. (In case of any unavailability of anchor point use Frontline Cross Arm Strap to create one.) Fig. 01
- Step 4: Now connect the tensioner to the second anchorage point along with tension



indicator by attaching a Carabiner to the hokey eye of tension indicator. Fig. 06

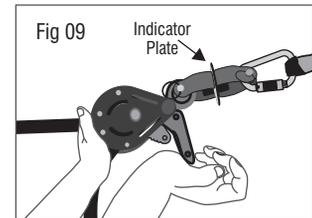
Step 5 : Pull the initial slack of rope by hand and ensure that rope is seated properly in the groove of pulley. Fig. 07

Step 6 : Use an open end spanner of 0.944 inches provided along with tensioner to give appropriate tension to the lifeline. Plate of Tension indicator will start to rotate freely once the required tension has been achieved in lifeline. Now, O rings/ pass through carriages can be used as mobile anchors for the workers. Fig. 08

Step 7 : To uninstall the lifeline, push the lock backwards in order to pull back the hockey. Hockey will release the pulley and allow rope to loosen. Fig. 9

Step 8 : Now lifeline may be taken off from the anchorage.

Step 9 : After uninstallation, inspect the entire lifeline for any evidence of damage, wear, corrosion on tensioner body and separation of rope fibers.



**Note:-**

**HLK1004** is provided with steel O-Rings to be used as mobile anchor for the workers to get connected to the lifeline permanently.

**HLK1004** is provided with pass through carriage anchor for single span horizontal lifeline to allow the 4 user to cross each other when required. Cross over steel anchors minimize the risk of fall during crossing over the other user without getting disengaged from the lifeline.

**WARNING-** Failure to understand and comply with safety regulations may result in serious injury or death. Regulations included herein are not all-inclusive, are for reference only, and are not intended to replace a Competent Person's judgment or knowledge of federal or state standards.

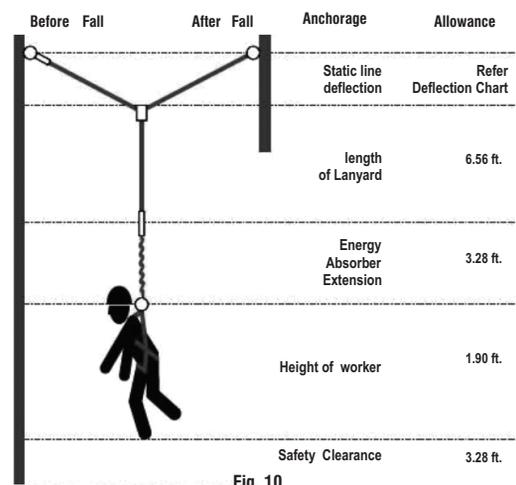
**Do not alter & misuse the equipment.**

**NOTE:-**

- Workplace conditions, including, but not limited to, flame, corrosive chemicals, electrical shock, sharp objects, machinery, abrasive substances, weather conditions, and uneven surfaces, must be assessed by a Competent Person before fall protection equipment is selected.
- The analysis of the workplace must anticipate where workers will be performing their duties, the routes they will take to reach their work, and the potential and existing fall hazards they may be exposed to. Fall protection equipment must be chosen by a Competent Person. Selections must account for all potential hazardous workplace conditions. All fall protection equipment should be purchased new and in an unused condition.
- Fall protection systems must be selected and installed under the supervision of a Competent Person, and used in a compliant manner.
- Fall protection systems must be designed in a manner compliant with all federal, state, and safety regulations.
- Forces applied to anchors must be calculated by a Competent Person.
- Harnesses and connectors selected must be compliant with manufacturer's instructions, and must be of compatible size and configuration.
- A pre-planned rescue procedure in the case of a fall is required. The rescue plan must be project specific. The rescue plan must allow for employees to rescue themselves, or provide an alternative means for their prompt rescue.
- Store rescue equipment in an easily accessible and clearly marked area.
- Training of Authorized Persons to correctly erect, disassemble, inspect, maintain, store, and use equipment must be provided by a Competent Person.
- Training must include the ability to recognize fall hazards, minimize the likelihood of fall hazards, and the correct use of personal fall arrest systems.
- NEVER use fall protection equipment of any kind to hang, lift, support, or hoist tools or equipment, unless explicitly certified for such use.
- Maintenance of equipment must be done according to manufacturer's instructions. Equipment instructions must be retained for reference.
- Prior to EACH use, all equipment in a fall protection system must be inspected for any potential or existing deficiencies that may result in its failure or reduced functionality. IMMEDIATELY remove equipment from service if any deficiencies are found.
- Equipment must be inspected by a Competent Person at least every six months. These inspections must be documented in equipment instruction manual and on equipment inspection grid label.
- Equipment must be inspected for defects, including, but not limited to, the absence of required labels or markings, improper form/fit/function, evidence of cracks, sharp edges, deformation, corrosion, excessive heating, alteration, excessive wear, fraying, knotting, abrasion, and absence of parts.
- Equipment that fails inspection in any way must immediately be removed from use, or repaired by an entity approved by the manufacturer.
- No on-site repair of equipment unless explicitly permitted by the manufacturer.
- Equipment subjected to forces of fall arrest must immediately be removed from use. Snap hooks, Carabiners, and other connectors must be selected and applied in a compatible fashion. All risk of disengagement must be eliminated. All snap hooks and Carabiners must be self-locking and self-closing, and must never be connected to each other.
- Age, fitness, and health conditions can seriously affect the worker should a fall occur. Consult a doctor if there is any reason to doubt a user's ability to withstand and safely absorb fall arrest forces or perform set-up of equipment.
- Pregnant women and minors must not use this equipment. Physical harm may still occur even if fall safety equipment functions correctly. Sustained post-fall suspension may result in serious injury or death. Use trauma relief straps to reduce the effects of suspension trauma. Allowable individual worker weight limit (including all equipment), unless explicitly stated otherwise, is 130-310 lbs.

**IMPORTANT INFORMATION :**

- The Horizontal Anchor Line and the anchor points need to be above the user's head, Horizontal anchor line is intended for use on span upto 100 ft, for a fall of up to 4 users, with anchor line fitted on spans of 15 ft to 100 ft, the typical peak line deflection from the original position are stated in table above.



Deflection Chart				
Span Length \ Users	1	2	3	4
15 ft.	3.87	4.30	3.87	3.87
20 ft.	4.33	4.82	4.36	4.36
25 ft.	5.28	5.91	5.31	5.31
30 ft.	5.74	6.43	5.81	5.81
35 ft.	6.69	7.51	6.76	6.76
40 ft.	7.15	8.04	7.25	7.25
45 ft.	8.07	9.09	8.20	8.20
50 ft.	8.56	9.65	8.69	8.69
55 ft.	9.48	10.70	9.65	9.65
60 ft.	9.94	11.22	10.14	10.14
65 ft.	10.89	12.30	11.12	11.12
70 ft.	11.35	12.83	11.58	11.58
75 ft.	12.30	13.95	12.56	12.56
80 ft.	12.76	14.44	13.02	13.02
85 ft.	13.68	15.49	14.01	14.01
90 ft.	14.14	16.01	14.50	14.50
95 ft.	15.06	17.06	15.49	15.49
100 ft.	15.52	17.59	15.98	15.98

Table

**MAINTENANCE, CLEANING, AND STORAGE**

- Repairs to 4-Person Rope HLL can only be made by a by a competent person or an entity authorized by manufacturer. If a 4-Person Rope HLL fails inspection in any way, immediately remove it from service, and contact manufacturer to inquire about its return or repair.
- Cleaning after use is important for maintaining the safety and longevity of 4-Person Rope HLL.
- Remove all dirt, corrosives, and contaminants from 4-Person Rope HLL before and after each use. If 4-Person Rope HLL cannot be cleaned with plain water, use mild soap and water, then rinse and wipe dry. NEVER clean 4-Person Rope HLL with corrosive substances.
- When not in use, store equipment where it will not be affected by heat, light, excessive moisture, chemicals, or other degrading elements.

**INSPECTION**

- KEEP INSTRUCTIONS AVAILABLE FOR REFERENCE. Record Date of First Use
- Prior to EACH use, inspect 4-Person Rope HLL for deficiencies, including, but not limited to, corrosion, deformation, pits, burrs, rough surfaces, sharp edges, cracking, rust, paint buildup, excessive heating, alteration, broken stitching, fraying, bird-caging, and missing or illegible labels. IMMEDIATELY remove 4-Person Rope HLL from service if defects or damage are found, or if exposed to forces of fall arrest.
- Ensure that applicable work area is free of all damage, including, but not limited to, debris, rot, rust, decay, cracking, and hazardous materials. Ensure that selected work area will support the application-specific minimum loads set forth in this instruction manual. Work area MUST be stable.
- At least every 6 months, a Competent Person other than the user must inspect 4-Person Rope HLL. **Competent Person inspections MUST be recorded in inspection log in instruction manual and on equipment inspection grid label. The Competent Person must sign their initials in the box corresponding to the month and year the inspection took place.**
- During inspection, consider all applications and hazards 4-Person Rope HLL have been subjected to.

**PRODUCT SPECIFIC APPLICATIONS**

**WARNING:** Use of equipment in unintended applications may result in serious injury or death. Maximum 1 attachment per connection point

**Personal Fall Arrest:** 4-Person Rope HLL may be used to support a MAXIMUM 4 Personal Fall Arrest Systems (PFAS) for use in Fall Arrest applications. Structure must withstand loads applied in the directions permitted by the system of at least 3375 lbs.

**Restraint:** 4-Person Rope HLL may be used in Restraint applications. Restraint systems prevent workers from reaching the leading edge of a fall hazard. Always account for fully deployed length of lanyard/SRL. Structure must withstand loads applied in the directions permitted by the system of at least 3375 lbs No free fall is permitted.

**For all applications: worker weight capacity range (including all clothing, tools, and equipment) is 130-310 lbs.**

**NEVER for simultaneous use in Fall Arrest and Restraint**

**LIMITATIONS**

**Fall Clearance:** There must be sufficient clearance below the anchorage connector to arrest a fall before the user strikes the ground or an obstruction. When calculating fall clearance, account for a MINIMUM 4ft safety factor, deceleration distance, user height, length of lanyard/SRL, and all other applicable factors as shown in in Fig. 10.

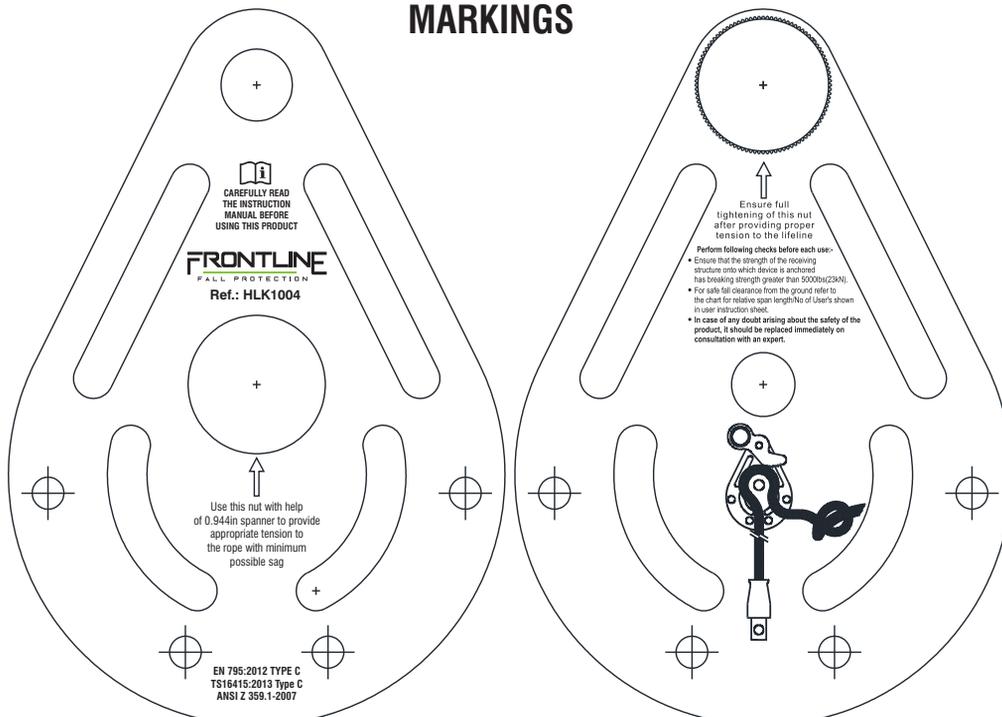
**Swing Falls:** Prior to installation or use, make considerations for eliminating or minimizing all swing fall hazards. Swing falls occur when the anchor is not directly above the location where a fall occurs. Always work as close to in line with the anchor point as possible. Swing falls significantly increase the likelihood of serious injury or death in the event of a fall.

**Compatibility:** When making connections with 4-Person Rope HLL, eliminate all possibility of roll-out. Roll-out occurs when interference between a hook and the attachment point causes the hook gate to unintentionally open and release. All connections must be selected and deemed compatible with 4-Person Rope HLL by a Competent Person.

**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.

**MARKINGS**



**INSPECTION LOG**

User must inspect prior to EACH use. Competent Person other than user must complete formal inspection at least every 6 months. Competent Person to inspect and fill the initial in the below inspections log.

Date of First Use: \_\_\_\_\_ . Product lifetime is 10 years from Date of First Use, or, if not recorded, from Date of Manufacture, as long as it passes pre-use and Competent Person inspections.

This inspection log must be specific to one 4-Person Rope HLL. Separate inspection logs must be used for each 4-Person Rope HLL. All inspection records must be made visible and available to all users at all times.

**PERSON INSPECTIONS**

This inspection log must be specific to one 4-Person Rope HLL. Separate inspection logs must be used for each 4-Person Rope HLL. All inspection records must be made visible and available to all users at all times.

	<b>J</b>	<b>F</b>	<b>M</b>	<b>A</b>	<b>M</b>	<b>J</b>	<b>J</b>	<b>A</b>	<b>S</b>	<b>O</b>	<b>N</b>	<b>D</b>
<b>YR</b>												
<b>YR</b>												
<b>YR</b>												
<b>YR</b>												
<b>YR</b>												

**If equipment fails inspection IMMEDIATELY REMOVE FROM SERVICE.**

**Inspection Plate**

**SPECIFICATIONS:** Minimum breaking strength is 5000lbs. Maximum Capacity is four person with a maximum weight of 310 lbs (each person), when used as a temporary horizontal life line for a personal fall arrest or restraint system.

**MATERIALS OF CONSTRUCTIONS:** Aluminium Alloy and Stainless Steel. This device meets OSHA, ANSI Z359.1-2007 and EN 795:2012 Type C & TS16415:2013 Type C requirements for use as an anchorage connector.

Serial Number : xxxx      Inspection Grid

<b>YR</b>	<b>J</b>	<b>F</b>	<b>M</b>	<b>A</b>	<b>M</b>	<b>J</b>	<b>J</b>	<b>A</b>	<b>S</b>	<b>O</b>	<b>N</b>	<b>D</b>

Inspection – Product must be inspected by user/authorized person before each use. A competent person must check & record at intervals of every 3 months.

**WARNING: READ CAREFULLY BEFORE USING**

Manufacturer's Instructions supplied with this product at time of shipment must be followed for proper use, Maintenance and inspection. Use only with ANSI/OSHA approved personal fall arrest or restraint systems.

Alteration or misuse of this product or failure to follow instructions may result in serious injury or death. Do not remove this label.

Conforms to :  
ANSI Z 359.1-2007,  
EN 795:2012, TYPE 'C' &  
TS16415:2013 TYPE C

**FRONTLINE**  
FALL PROTECTION

Read the user instructions carefully before each use.

Product Code: **HLK1004**  
Product Description: **Temporary Horizontal Life Line**  
Batch No.: **MM/YYYY**  
Maximum Span Length: **100ft.**  
Minimum Breaking Strength: **5000lbs**

MAX  
Weighing not more than 310 lbs (each)

www.frontlinefall.com

<b>EQUIPMENT RECORD</b>				
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)				
<b>PERIODIC EXAMINATION AND REPAIR HISTORY</b>				
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