

FRONTLINE®

FALL PROTECTION

USER INSTRUCTION MANUAL

WARNING TO USER!

You are required to read and fully understand the user instruction manual BEFORE using this product. Improper use and installation can result in serious injury or death. User manuals occasionally may be updated so for the latest user manual please visit www.frontlinefall.com/uim



ELITE LINE 2 PERSON 60' ADJUSTABLE CABLE HORIZONTAL LIFELINE

THIS INSTRUCTION MANUAL
APPLIES TO THE FOLLOWING MODEL:
HCLL260

FRONTLINE®
FALL PROTECTION
WWW.FRONTLINEFALL.COM

Complies with ANSI Z359.1-2007,
EN 795:2012 Type C & TS 16415:2013 Type C
OSHA 1916, OSHA 1926 SUB PART M

BKFL 31-01

5. PRE-USE CHECK:

STEP 1: Inspect all screws, bolts and nuts. Ensure they are securely attached and tight. Check to see if any bolts, nuts or other parts are missing, or have been substituted or altered in any way. Inspect covers, housings, guards, etc. Ensure they are free of cracks, dents, or other damage.

STEP 2: Inspect metal components for rust or corrosion that may affect their strength or operation.

STEP 3: Inspect the wire rope for rust, corrosion, broken wires, or other obvious faults. Inspect the synthetic rope for burnt, broken threads, or other obvious faults. Inspect all karabiners and connectors securing the HLL assembly to ensure they are present and properly installed. Inspect the sleeves at the end of the lifeline for damage such as cracks, dents or distortion.

STEP 4: Inspect the impact indicator at the end of the lifeline. If the pin is broken, the system has been exposed to an impact force. The system must not be used if the indicator is broken.

STEP 5: Pull sharply on the lifeline close to the device end to ensure that the lifeline is secured.

STEP 6: Repeat step 4 of this manual to ensure that the lifeline is under the correct tension. If not necessary, do not apply any extra-tension on the lifeline during this operation, just make sure that the crank handle "clicks".

STEP 7: Inspect system labels. The labels must be present and fully legible. Replace labels if missing or illegible.

IMPORTANT: If this equipment is subjected to the forces of a fall arrest, it must be removed from service and destroyed.

- If inspection reveals an unsafe or defective condition, remove unit from service.

USER EQUIPMENT: Inspect harnesses and energy absorbing lanyards or SRL's used with the HLL system according to manufacturer's instructions.

- This equipment must be inspected according to steps listed in this manual by a competent person, other than the user, at least annually. Record the results of each inspection in the equipment record table.

IMPORTANT: Extreme working conditions (harsh environments, prolonged use, etc.) may require increasing the frequency of inspections.

- If inspection reveals an unsafe or defective condition, remove the HLL from service and contact an authorized service center for repair.

6. SYSTEM REQUIREMENTS:

- **Compatibility of Connectors:** 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 the safety and reliability of the complete system.
- **Compatibility:** 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. Connectors (Hooks, Karabiners, and D-rings) must be capable of supporting at least 5,000 lbs. (22.2 kN). 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.
- **Connections:** Only use self-locking snap hooks and karabiners 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.

Frontline connectors (Snap Hooks and Karabiners) are designed to be used only as specified in each product's user instructions.

NOTE: 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.

- In a false engagement, where features that protrude from the snap hook or carabiner 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 allows such a connection).
- To any object which is shaped or dimensioned such that the snap hook or karabiners will not close and lock, or that roll-out could occur.

15. CLEANING AND MAINTENANCE:

- Cleaning of soil & dirt with cloth must be done at a safe area to avoid accumulation of static charge.
- In case of any doubt arising about the safe condition of the product such as crack in the housing or any other metal part, hindered retractions, delayed / early locking fall indicator showing red mark, in such cases immediately remove from service & send it to authorized repair center.
- Cleaning and maintenance shall be conducted in non-hazardous area.

16. MAINTENANCE, SERVICING, STORAGE:

- Periodically clean the exterior of the unit with water and mild soap solution. Position the unit so excess water can drain out. Clean labels as required. Wipe off hardware with a clean, dry cloth.
 - Clean the lifeline with water and mild soap solution. Rinse and thoroughly air dry. Do not force dry with heat. An excessive buildup of dirt, paint, etc., may prevent the lifeline from fully retracting.
 - Lifeline replacement and additional maintenance and servicing procedures must be completed by an authorized service center. Do not lubricate any parts. Do not disassemble the unit.
- Note:** If the lifeline contacts acids, remove unit from service and wash with water and mild soap solution. Inspect unit before returning to service.
- Clean and store body support and associated system components according to manufacturer's instructions.
 - Store the unit in a cool, dry, clean environment, out of direct sunlight. Avoid areas where chemical vapors may exist. Inspect the unit after extended storage.
 - **USER EQUIPMENT:** Maintain, service, and store each piece of user equipment according to its manufacturer's instructions.

17. WARNING:

- **DO NOT ALTER OR MISUSE THE EQUIPMENT.**
- Any alteration & misuse of the product can lead to serious injury or death.
- 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.
- Use of equipment in unintended applications may result in serious injury or death.

18. PERIODIC EXAMINATION:

- It is important to conduct regular periodic examination of the product because the safety of the user depends upon the continued efficiency & durability of the product.
- The frequency of examination should be at least once in a year however it can be more than once if legislation requires, or frequency of use is high or environmental conditions have an adverse effect on it eg. excessive rain, sea side environment, excessive heat etc.
- It is emphasized that the examination be conducted Only by the manufacturer or by a person / organization authorized by the manufacturer strictly in accordance with their periodic examination procedures.
- It is also advised the competent person be duly trained and authorized by the manufacturer.
- Ensure that all markings on the product are legible and can be clearly read.

12. ADVICE AND INFORMATION:

- The anchor device shall be used for the use of Two user only.
- When the anchor device is used as part of a fall arrest system, the user shall be equipped with a means of limiting the maximum dynamic forces exerted on the user during the arrest of a fall to a maximum of 6 kN.
- The maximum value of deflection of the anchor device and displacement of the anchor point that can occur in service.
- The maximum angle is 15° at which the anchor line should enter or exit intermediate supports, e.g. intermediate anchors or corner anchors.
- Anchor device may be used in conjunction with Frontline retractable type fall arresters.
- The potential dangers that arise can include serious injury or death when type C anchor devices are combined with retractable type fall arresters (EN 360) or guided type fall arresters including a flexible anchor line (EN 353-2) which have not been tested together.
- Direct connection with the connector or lanyard is not allowed
- Where the mobile anchor point cannot pass through a discontinuity in the anchor line without removing it from the anchor line (e.g. at corners or at intermediate anchors), a description of suitable measures for safe transfer of the mobile anchor, point by connecting yourself to a backup line or on to the structure before disconnecting from the main line.
- The anchor device should only be used for personal fall protection equipment and not for lifting equipment.
- Ensure about medical conditions that could affect the safety of the equipment user in normal and emergency use.
- Serious injury or even death may occur by the use of combinations of items of equipment in which the safe function of any one item is affected by or interferes with the safe function of another.
- Carry out a pre-use check of the equipment, to ensure that it is in a serviceable condition and operates correctly before it is used.
- Use standard packaging of the manufacturer to prevent any damages during transportation.
- It is essential for the safety of the user that if the product is re-sold outside the original country of destination the reseller shall provide instructions for use, for maintenance, for periodic examination and for repair in the language of the country in which the product is to be used.
- When the equipment becomes wet, either from being in use or when due to cleaning, it shall be allowed to dry naturally, and shall be kept away from direct heat.

13 REPAIR: If the product becomes damaged, it will NOT provide the optimum level of protection, and therefore should be immediately either replaced or repaired. Never use the damaged product. Repair is permitted, provided that it is either done by the manufacturer or a competent repair centre or individual approved by the manufacturer.

- No on-site repair of equipment unless explicitly permitted by the manufacturer.

14. WITHDRAW FROM USE: When no longer required, the HLL system should be removed from the job site. To slacken the HLL, connect the crank to the tensioner shaft and rotate clockwise for about 20°, press the Push pin simultaneously and allow the crank to rotate counterclockwise. Disconnect the HLL system from the anchorages. Retract the lifeline back into the housing by connecting the crank handle more likely to the winch shaft and rotate counterclockwise. Ensure there are no knots or kinks in the lifeline as you retract it.

- **TRAINING:** It is the responsibility of all users of this equipment to understand these instructions, and are trained in the correct installation, use, and maintenance of this equipment. These individuals must be aware of the consequences of improper installation or use of this equipment. This user manual is not a substitute for a comprehensive training program. Training must be provided on a periodic basis to ensure proficiency of the users.

WARNING:

Both ends of the lifeline must be securely attached to appropriate anchors when in use. Never attach the end of the lifeline to a harness to use it in the manner of a winch or SRL.

CONNECTING SUBSYSTEM: The connecting subsystem is the portion of the personal fall arrest system that is used to connect between the horizontal lifeline subsystem and harness fall arrest attachment element. The connecting subsystem must limit forces applied to the horizontal lifeline to 900lbs. (4.0kN) or less.

WARNING:

Do not alter or intentionally misuse this equipment. Use caution when using this equipment around moving machinery, electrical and chemical hazards, and sharp edges.

WARNING:

Consult your doctor if there is reason to doubt your fitness to absorb the impact from a fall arrest. Age and fitness can affect your ability to withstand fall arrest forces. Pregnant women and minors must not use this system.

7. OPERATION:

- **Personal Fall Arrest System Components:** Inspect and don a full body harness according to the manufacturer's instructions. Attach the connecting subsystem (energy absorbing lanyard or SRL) to the dorsal connection on the harness.
- **Connecting to the HLL System:** Approach the work area using the appropriate access equipment. Connect the personal fall arrest system to the HLL. Connectors must meet all compatibility and strength requirements.
- **Hazardous Situations:** Do not take unnecessary risks, such as jumping or reaching too far from the edge of the working surface. Do not allow the connecting subsystem to pass under arms or between feet. To avoid inadequate clearance, do not climb above the HLL. To avoid swing fall hazards, do not work too far from either side of the HLL.
- **Two Persons Connected to the HLL:** When a person falls while connected to the HLL, the system will deflect. If two persons are connected to the same HLL, and one person falls, the second person may be pulled off the working surface due to deflection. The potential for the second person falling increases as the HLL span length increases. The use of independent HLL systems for each person, or shorter span length, is recommended to minimize the potential of the second person falling.

WARNING:

Both ends of the lifeline must be securely attached to appropriate anchors when in use. Never attach the end of the lifeline to a harness to use it in the manner of a winch or SRL.

- **Free Fall:** The personal fall arrest system must be rigged to limit free falls to 6 ft. (1.8 m) or less when using an energy absorbing lanyard, or such that the SRL is overhead and without slack, according to OSHA requirements.
- **Sharp Edges:** Avoid working where the connecting subsystem or other system components will be in contact with, or abrade against, unprotected sharp edges. If working around sharp edges is unavoidable, a protective cover must be used to prevent cutting of the personal fall arrest system components.
- **In the Event of a Fall:** The responsible party must have a rescue plan and the ability to implement a rescue. Tolerable suspension time in a full body harness is limited, so a prompt rescue is critical.
- **Rescue:** With the number of potential scenarios for a worker requiring rescue, an on-site rescue team is beneficial. The rescue team is given the tools, both in equipment and techniques, so it can perform a successful rescue. Training should be provided on a periodic basis to ensure rescuers proficiency.

Fall Clearance & Deflection Chart HCLL260

• **Single User**

Pay Out Length (Ft/M)	Deflection	Fall Clearance (Ft/M)- When used with Frontline SRL	Fall Clearance (Ft/M)-When used with 6.50ft / 2M Shock Absorbing Lanyard
16.40ft (5m)	4.04ft (1.23m)	17.16ft (5.23m)	23.72ft (7.23m)
19.69ft (6m)	4.20ft (1.26m)	17.32ft (5.28m)	23.88ft (7.28m)
22.97ft (7m)	4.36ft (1.33m)	17.48ft (5.35m)	24.05ft (7.33m)
26.25ft (8m)	4.52ft (1.38m)	17.65ft (5.39m)	24.21ft (7.38m)
29.52ft (9m)	4.68ft (1.42m)	17.80ft (5.42m)	24.34ft (7.42m)
32.80ft (10m)	4.82ft (1.47m)	18.00ft (5.47m)	24.50ft (7.47m)
36.08ft (11m)	4.98ft (1.52m)	18.11ft (5.52m)	24.67ft (7.52m)
39.37ft (12m)	5.15ft (1.57m)	18.28ft (5.57m)	24.83ft (7.57m)
42.65ft (13m)	5.31ft (1.62m)	18.43ft (5.62m)	25.00ft (7.62m)
45.93ft (14m)	5.47ft (1.67m)	18.60ft (5.67m)	25.16ft (7.67m)
49.21ft (15m)	5.61ft (1.71m)	18.73ft (5.71m)	25.30ft (7.71m)
52.49ft (16m)	5.77ft (1.76m)	18.90ft (5.76m)	25.45ft (7.76m)
55.77ft (17m)	5.93ft (1.81m)	19.00ft (5.81m)	25.62ft (7.81m)
59.05ft (18m)	6.10ft (1.86m)	19.22ft (5.86m)	25.79ft (7.86m)

Fall Clearance & Deflection Chart HCLL260

• **Two Users**

Pay Out Length (Ft/M)	Deflection	Fall Clearance (Ft/M)- When used with Frontline SRL	Fall Clearance (Ft/M)-When used with 6.50ft / 2M Shock Absorbing Lanyard
16.40ft (5m)	4.28ft (1.30m)	17.40ft (5.30m)	24.00ft (7.30m)
19.69ft (6m)	4.53ft (1.38m)	17.65ft (5.39m)	24.21ft (7.38m)
22.97ft (7m)	4.82ft (1.47m)	18.00ft (5.47m)	24.50ft (7.47m)
26.25ft (8m)	5.09ft (1.55m)	18.20ft (5.55m)	24.77ft (7.55m)
29.52ft (9m)	5.38ft (1.64m)	18.50ft (5.64m)	25.07ft (7.64m)
32.80ft (10m)	5.64ft (1.72m)	18.76ft (5.72m)	25.32ft (7.72m)
36.08ft (11m)	5.90ft (1.80m)	19.00ft (5.80m)	25.60ft (7.80m)
39.37ft (12m)	6.20ft (1.89m)	19.32ft (5.89m)	25.90ft (7.89m)
42.65ft (13m)	6.50ft (1.97m)	19.60ft (5.97m)	26.18ft (7.97m)
45.93ft (14m)	6.72ft (2.05m)	19.85ft (6.05m)	26.41ft (8.05m)
49.21ft (15m)	7.00ft (2.14m)	20.15ft (6.14m)	26.70ft (8.14m)
52.49ft (16m)	7.29ft (2.22m)	20.41ft (6.22m)	27.00ft (8.22m)
55.77ft (17m)	7.58ft (2.31m)	20.70ft (6.31m)	27.28ft (8.31m)
59.05ft (18m)	7.84ft (2.39m)	21.00ft (6.39m)	27.53ft (8.39m)

8. OPERATION AND USE:

System Installation: Fig. A shows typical horizontal lifeline system installations. When using an energy absorbing lanyard to connect to the system, the end anchorages must be located at a height which will limit the free fall to 6 ft (1.8 m). When using a self retracting lifeline (SRL) to connect to the system, the end anchorages must be located above the user. The SRL, when fully retracted, must be above the harness attachment level. The horizontal lifeline system should be positioned at a level that will minimize free fall while allowing ease of use. The horizontal lifeline should be positioned near the work location to minimize swing fall hazards. The connecting subsystem length should be kept as short as possible to reduce the potential free fall and required clearance distance. Both anchorages must be installed at approximately the same elevation, so that the horizontal lifeline system is not sloped more than 15°.

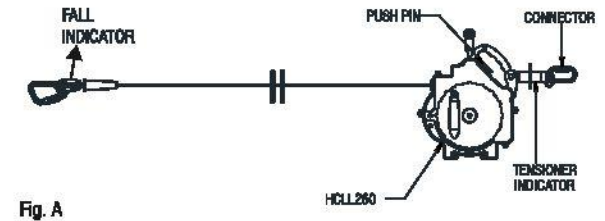
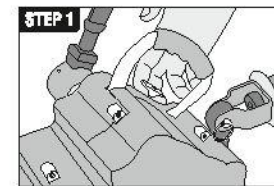


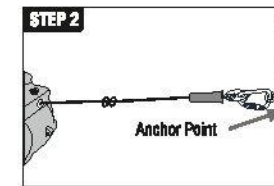
Fig. A

9. HOW TO INSTALL:

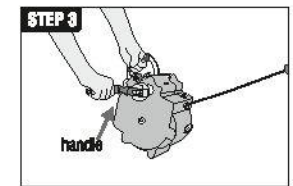
Determine the locations of the end anchorages and evaluate their strengths in accordance to manufacturer's instructions. Determine the span length and evaluate the required clearance.



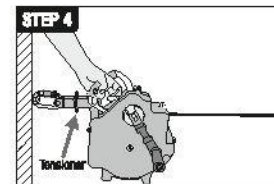
Press on the Push pin on top of the housing and hold it down to pay out the required amount of lifeline by pulling out the line.



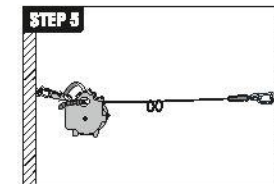
Now Connect the lifeline housing to a suitable anchorage point.



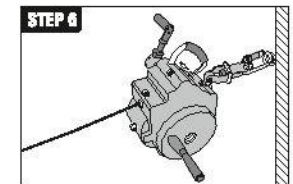
Reel out the wire rope by rotating the handle in clockwise direction.



Connect the crank handle to the tensioner shaft and remove excess slack by rotating clockwise. The lifeline must be tensioned until a red washer is freely moving.



HCLL260 is ready to use.



After use, rotate the handle in anti-clockwise direction to retrieve the wire.

10. ANCHORAGE STRENGTH: Structural anchorage points must be rigid, and capable of supporting at least 5000lbs along the axis of the horizontal lifeline.

Note- Anchorages must be rigid. Large deformations of the anchorage will affect system performance, and may increase the required fall clearance below the system, which could result in serious injury or death.

11. LIMITATIONS:

- The product shall only be used by a person trained and a competent in its safe use.
- The product shall not be used outside its limitation for only purpose other than for which it is intended.