



LV2 FULL BODY HARNESS

LV3 FULL BODY HARNESS

USER INSTRUCTION MANUAL FULL BODY RESCUE HARNESS

THESE INSTRUCTIONS APPLY TO THE FOLLOWING MODELS: AFH300404 and AFH300252 **C € 0598** EN 361:2002, EN 358:2018, EN 813:2008



Please read and understand the manufacturer's instructions for each component or part of the complete system. Manufacturer's instructions must be followed for proper use, care, and maintenance of this product. These instructions must be retained and be kept available for the user's reference at all times. Alterations or misuse of this product, or failure to follow instructions, may result in serious injury or death.

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

- IMPORTANT: The Harnesses are classed as Personnel Protective Equipments (PPE) by the European PPE Regulation (EU) 2016/425 and have been shown to comply with this Regulation through the Harmonized European Standard BS EN 361:2002, EN 358:2018 and EN 813:2008.
 - Maximum rated load for the harness is 140kg including all tools (also marked on product label).
 - Its essential to use only a compatible energy absorbing lanyard with this harness.

The Harnesses are designed to minimise the risk of/provide protection against the danger of falling from heights. However, always remember that no item of PPE can provide full protection and care must always be taken while carrying out the risk related activity.

2. DESCRIPTION:

PRODUCT CODE	CATEGORY	PRODUCT DESCRIPTION	MAX RATED LOAD
AFH300404	Epic	Full Body Rescue Harness	140kg
AFH300252	Elite	Full BodyTower Harnesses	140kg

 PERFORMANCE AND LIMITATIONS OF USE: The Harnesses have been tested in accordance with EN 361:2002, EN 358:2018 & EN 813:2008 and has achieved the following performance levels:

EN 361:2002 test	Result/Comment		
Clause 4.1 Design and Ergonomics	Achieves required performance requirement		
Clause 4.2 Material & Construction	Achieves required performance requirement		
Clause 4.3 Static strength	Achieves required performance requirement		
Clause 4.4 Dynamic Performance	Achieves required performance requirement		

EN 813:2008 test	Result/Comment		
Clause 4.1 Ergonomics	Achieves required performance requirement		
Clause 4.2 Design, Materials & Construction	Achieves required performance requirement		
Clause 4.5 Corrosion resistance	Achieves required performance requirement		

EN 358:2018 test	Result/Comment		
Clause 4.1 Design, Construction and Ergonomics	Achieves required performance requirement		
Clause 4.2 Materials	Achieves required performance requirement		
Clause 4.4 Static Strength	Achieves required performance requirement		
Clause 4.5 Dynamic Strength	Achieves required performance requirement		



4. LIMITATIONS:

- Harness should be the personal property of its user.
- The strength of the anchor device should be greater than 18 kN (for Textile) & 12kN (for Metal) and the anchor point should be situated above the user's head.
- It should not be used in highly acidic or basic environments.
- Protect the harness from mechanical hazards like sharp edges, tools, exposure to sunlight, ultraviolet degradation both during usage, transportation and storage.
- Use the dorsal D-Ring & front chest D-Ring for fall arrest. Lateral D-Rings for work
 positioning & front waist D-Ring for Rope Access.
- If the harness has an extension band at the back D-Ring. Make sure that the total length of the lanyard+energy absorber+ connectors+extension band is not more than 2 ms.

NOTE: It is essential for the safety of the user that if the product is resold 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.

5. FREE FALL:

Personal fall arrest systems used with this equipment must be rigged to limit the free fall to 4.0 M as per EN 361:2002. Restraint systems must be rigged as per EN 354:2010 so that no vertical free fall is possible. Work positioning systems as per EN 358:2018 must be rigged so that free fall is limited to 1m 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 2L+1 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

6. 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.

7. EXTENDED SUSPENSION:

A full body harness is not intended for use in extended suspension applications. If the user is going to be suspended for an extended length of time it is recommended that some form of seat support be used. KStrong recommends an Easy seat. Contact KStrong for more information on this item.









8. 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.

9. COMPATIBILITY OF COMPONENTS:

Unless otherwise noted, KStrong equipment is designed for use with KStrong 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.

10. 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. Connectors (hooks, karabiners, and D-rings) must be capable of supporting at least 23 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 (see Figure 3). Connectors must be compatible in size, shape, and strength. double locking snap hooks and karabiners are required by EN 362:2004.

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. (Refer 7 & 8)





11. MAKING CONNECTIONS:

- Use only double locking snap hooks and karabiners (as per EN362:2004) 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.
- KStrong connectors (snap hooks and karabiners) are designed to be used only as specified in each product's user's instructions.
 See Figure 3 for illustration of the inappropriate connections stated below. KStrong snap hooks and karabiners should not be connected:
 - 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 karabiners catch on the anchor and without visual confirmation seems to be fully engaged to the anchor point.
 - To a D-ring to which another connector is attached.
 - 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.
 - Directly to webbing or rope lanyard (as per EN355:2002) or tie-back (unless the manufacturer's instructions for both the lanyard and connector specifically allow such a connection) to each other.

12. OTHER RESTRICTIONS:

- 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 a choker style connector. This type of connection is not allowed for snap hooks.

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



13. CONNECTING SUB-SYSTEMS:

Connecting subsystems (self-retracting lifeline, lanyard, Rope Grab and lifeline, cable sleeve) must be suitable for your application. See subsystem manufacturer's instructions for more information. Some harness models have textile loops connection points. Use a snap hook or double locking karabiners (as per EN362:2004) to connect to a textile loop. Ensure the karabiners cannot cross-gate load (load against the gate rather than along the backbone of the karabiners). Some lanyards are designed to choke onto a textile loop to provide a compatible connection. Lanyards (as per EN355:2002), may be sewn directly to the web loop forming a permanent connection. Do not make multiple connections onto one textile loop. unless choking two lanyards onto a properly sized web loop and is permitted by manufacturer.

14. 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.

15. 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 KStrong about policies regarding replacement of KStrong components involved in a fall.

16. SPECIFIC INSTRUCTIONS:

KStrong harness is designed to arrest the victim of fall and hold the user till the rescue process has been performed, till then the harness needs to be attached to the anchorage through a proper attachment system. So this is important that the whole system must have 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.

17. USE OF FALLARREST 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.

18. INSTRUCTIONS TO BE FOLLOWED BEFORE USE :

- It is important to carry out a pre use check of the equipment to ensure that it is in a serviceable condition.
- Inspect the harness, and the lanyard for any rupture of webbing, rope, seams, buckles, D-ring etc. Do not use in case of any rupture or defectiveness.
- In case of any doubt arising about the condition of any component or system, replace it immediately. If the harness has arrested a fall, withdrawit from service & return to manufacture or a competent repair centre.
- It is essential to ensure that there is a minimum clearance of 6m beneath the user at the work place before each occasion of use, so
 that in case of a fall, there will be no collision with the ground. Also, ensure that there exists no obstacle beneath the user at his
 workplace so that he does not collide with any, incase of a fall.
- Prior to use of the harness the user should carry out a suspension test in a safe place to ensure that the harness is the correct size, has sufficient adjustment, and is of an acceptable comfort level for the intended use.



- A full body harness is the only acceptable body holding device that can be used in a fall arrest system.
- Apart from Fall Arrest this harness can be used for specific situations in conjunction with Fall Arrestors where front attachment is needed.
- FITTING & SIZING: Follow below Step to wear the harness. Both leg straps as well as shoulder straps are adjustable to it the size of the user. 19. Aharness either too loose or too tight will restrict movement and will not provide the optimum level of protection. Visually inspect the harness before use to ensure that it is in a serviceable condition and operates correctly.

The full body harness is of S-M, L-XL, XXL+ size.

Size of Waist Belt : The waist belt attached with the harness is also of Universal Size.

Size Range of Waist Belt: Size range for the waist belt used with harness is 70 cm to 120 cm.

Note: Waist belt attached to the harness is approved for a user, including tools and equipment, with a weight of up to 150kg.

Visually inspect the harness before use to ensure that it is in a serviceable condition and operates correctly.



Connect and close the karabiner on the webbing loop provided above the ventral D-ring.



Untangle the harness by holding it from the dorsal D-ring.



Adjust and close the automatic buckle on the leg strap for proper fit.



Insert your feet into the waist belt such that the right foot enters into the right leg strap and similarly left foot into the left leg strap.



Now the adjust the combination buckle provided on the waist belt according to your body fit.



Hold the ventral D-ring and sternal karabiner to pull up the harness.



Tighten shoulder straps by means of adjustment provided to obtain tight fit.



Now insert your head between the two shoulder straps such that the harness lies completely on your shoulders.





NOTE: After donning the harness, user should carry out a comfort and adjustability test in a safe place by sitting, bending, forward to ensure that the sit harness is in the correct size, has sufficient adjustment and is of an acceptable comfort level for the intended use.

The harness with front anchor point can be used in specific situations along with a fall arrester that needs a front anchor point.

Now use the dorsal D-Ring & the front chest D-Ring for fall arrest. These two fall arrest attachment elements on the harness can be identified by an "A" inscribed over them. The lateral D-Rings are for work positioning, and front waist D-Ring is for Rope Access.

20. ANCHORAGE INSTRUCTION : The strength of the anchor device should be greater than 18kN (for Textile) & 12kN (for Metal).

Warning: For Work Positioning, it is essential for safety of a user to use an anchor point positioned at or above waist level. The lanyard should be kept taut as shown in the figure below.

- 21. MATERIAL USED: The entire webbing used in these harnesses are made up of polyester (EPIC range is aluminum Fittings and Elite is Steel Fittings).
- 22. COMPATIBILITY: To optimise protection, in some instance it may be necessary to use the harness with suitable ppe such as boots/gloves/helmet/ear defenders. In this case, before carrying out the risk-related activity, consult your supplier to ensure that all your protective products are compatible and suitable for your application according to relevant norms i.e. karabiners as per EN 362, lanyards as per EN 354, energy absorbing lanyards as per EN 355. Also, ensure that product is used by a trained and/or competent person.
- 23. STORAGE AND TRANSPORT: When not in use, store the harness in a well-ventilated area away from extremes of temperature. It should be stored loosely packed, in a dry and well-ventilated place, protected from direct light, UV degradation, dust, sharp edges, extreme temperature and aggressive substances. Never place heavy items on top of it. If possible, avoid excessive folding and preferably store it hanging vertically. If the product is wet, allow it to dry fully before placing it into storage.

The Personal Protective Equipment must be transported in a package that protects it against moisture or mechanical, chemical and thermal attacks.

- 24. REPAIR : If the product becomes damaged, it will NOT provide the optimum level of protection, and therefore it should be immediately removed from service. Never use the damaged product. Repairing is permitted, provided that it is either done by the manufacturer or a competent repair centre or individual approved by the manufacturer.
- 25. CLEANING : In case of minor soiling, wipe the full body harness with cotton cloth or a soft brush. Do not use any abrasive material. For intensive cleaning wash the harness in water at a temperature not more than 40°C using a neutral detergent (pH7). Do not use acid or basic detergents. Follow the washing instructions without any deviations.
- 26. HOW TO DISPOSE A LANYARD: When the Lanyard becomes unfit or in case of any wear and tear, dispose the Lanyard immediately. Follow the steps for Disposal:
 - · Segregate the equipment in three different crates for placing components in them respectively as-Textile, Metal and Plastic.
 - Hold the Lanyard from Dorsal D-ring.
 - Inspect the wear & tear present on the Lanyard.
 - Now, using a sharp pair of scissors first cut the Textile and dismantle the Lanyard.
 - Now remove the metal & plastic components separately from the Lanyard.
 - Put the Textile, Plastic & Metal components in their respective plastic crates.

27. WARNING:

- Do not make any alterations or additions in the harness without the manufacturer's prior written consent.
- If the equipment becomes wet, either from being in use, or when cleaning, it should be allowed to dry naturally, and should be kept away from direct heat.
- It is essential to regularly check the fastening and/or adjustment elements during use. Also ensure that the user instructions are
 complied with for all other components in the fall arrest system like lanyards, karabiners etc.
- Ensure the Medical condition of the user does not affect his safety in normal and emergency use.
- A rescue plan shall be in place to deal with any emergencies that could arise during the work.
- It is essential for the safety of the user that if a 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 sold.

- The equipment shall not be used outside its limitation, or for any purpose other than that for which it is intended.
- The device should be used with appropriate combinations only. The user should not make any combination which compromises safe function of any other devices used in combination or entire fall protection system or rescue system.
- It is recommended that a sit harness is not suitable for use of fall arrest purposes.
- It is necessary to carry out regular periodic examinations. The safety of the users depends upon the continued efficiency and durability of the equipment.
- Waist Belt is not suitable for fall arrest purposes and it should not be used if there is a foreseeable risk of the user becoming
 suspended or being exposed to unintended tension by the waist belt.

28. INSTRUCTIONS FOR PERIODIC EXAMINATIONS :

- It is necessary to carry out regular periodic examinations. The safety of the users depends upon the continued efficiency and durability
 of the equipment.
- The personal protective equipment shall be examined at least every 12 months. The periodic examination can only be carried out by the manufacturer or his authorized representative.
- The comments should be included in the check card of the equipment. After the periodic examination, the next due date for periodic examination will be determined.
- During periodic inspection it is necessary to check the legibility of the equipment marking.
- To check metals for sharp edge, Burs, Corrosion, bent profile distortion and opening & closing or such mechanisms for which that is intended for.
- To check webbings/ropes for breakage, untwisting, frayed, burn, paint, excessive dust or soiling, cut, exposure to chemical or any such
 elements which can harm the webbing/ropes or can result in the compromised performance of the entire system or device in which it is
 used.
- Shall be discarded as per procedures given under point instructions for disposal.
- The required annual examinations will validate the correct functioning of the equipment. It is compulsory that the equipment is
 examined by the manufacturer or his authorized representative at least once a year.
- In case that it have been used to arrest a fall, the equipment must be withdrawn from use.
- · It is important to check the legibility of the markings during inspection.
- 29. PROTECTION FROM SUSPENSION TRAUMA, IN CASE OF A FALL: In the event of fall, the system must have a shock absorbing unit intact, which shall limit the maximum fall arrest load up to 6kN. After the fall, the victim must be rescued within 15 min of the fall to avoid jamming of blood vessels caused by stress. This is referred as state of Suspension Trauma, which can lead to serious injury or death.

In case of a fall, victim can use KARAM Suspension Intolerance Strap to combat ill effects of Suspension Trauma, while he waits for his rescue, suspended in his harness.



MARKING 30. MARKING ON PRODUCT: The harness is marked with : The CE mark showing that the product meets (i) K+STRONG K#STRONG (ii) the requirements of the European PPE ICAPTURE EPIC ICAPTURE EPIC Regulation (EU) 2016/425 LV3 || FULL BODY HARNESS LV3 || FULL BODY HARNESS (ii) Trademark of the manufacturer (iii) Type or product code (iii)-: AFH300404 Model Month and Year of Manufacture (iv) (vii) Material Polyester Pictogram that indicates to read the instructions (v) DOM MM/YYYY (iv)-(vi) UID of Traceability ORCODE W. Belt Size : Universal (vii) Material Size Range : 70-120 cm (viii) Size of the harness UID : XXXXXXXXXXXXXX (vi) Number of the standard (ix) C E 0598 (i) 140 _{kg} Identification of the manufacturer and address (X) EN 361:2002. (ix) Max. Rated Load EN 358:2018 & (Including all tools) EN 813:2008 (v) i -KStrong Inc., 150 N. Radnor Chester Road Suite F200 Radnor, Pennsylvania 19087 United States (X) -<u>S</u> XXL+ (viii) M-XL K/STRONG K/STRONG K/STRONG K/STRONG K/STRONG CAPTURE EPIC CAPTURE EPIC CAPTURE EPIC CAPTURE EPIC CAPTURE EPIC EULL E How to wear a harness: The harne A WARNING How to wear a harness: The harness can be Proper buckle adjustment: The buckle can be INSPECTION GRID ss can be Ensure product is inspected thoroughly before every use. Inspection must be done by a competent person and recorded every six months. If equipment fails inspection IMMEDIATELY REMOVE FROM SERVICE. worn in following simple steps part-1 worn in following simple steps part-2 adjusted in following simple steps properly: The product should be IMMEDIATELY removed from service if subjected to a fall or if harness has failed inspection. 5 Ensure only compatible connections are made. Before using, inspect for rips, tears, Date of First Lise: frays or any possible damage which may Product Lifetime : 10 year Shelf Life from DOM weaken the product's overall strength in case of a fall. Keep safe from sharp edges YR 20 20 20 20 20 20 20 20 20 20 20 YR 20< and abrasive surfaces. A WARNING Ensure manufacturer's instructions provided at the time of shipment are followed at all times for proper use, A maintenance and inspection.

FAILURE TO DO SO COULD RESULT IN SERIOUS INJURY OR DEATH. ANY ALTERATION, ABUSE OR MISUSE OF THIS PRODUCT VOIDS THE WARRANTY. Made in India kstrong.com

> Note: Marking on the lanyard (attached with the harness) must have the maximum length of the lanyard and; Marking on the waist belt (work positioning belt) must include the size range of the belt used with the harness in cm.

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DO NOT REMOVE LABELS. DO NOT USE IF TAGS ARE MISSING

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LIFESPAN: The estimated product Lifespan is 10 years from the date of manufacture. The following factors can reduce the Lifespan of the product: intense use, contact with chemical substances, specially 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.

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			



Certification Body: SATRA Technology Europe Ltd, Bracetown Business Park, Clonee, Dublin D15 YN2P Ireland (Notified Body 2777) Ongoing Assessment Body: SGS Fimko Oy, Takomotie 8, FI-00380 Helsinki, Finland (Notified Body 0598)

For EU Declaration, please visit https://kstrong.com/asia/eu-declaration-form/



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