

# Instruction manual for full body harnesses, model V84 WRO certified according to EN 361:2002 and EN 813:2008



Thank you for choosing a VERTIQUAL® harness GSRS edition (Global Special Rescue Solutions)! You have purchased a high quality product that will reliably protect you and will be your companion for a long time when working at heights and depths.

This manual must be read and understood before using the product! This product will be used with other equipment (components) thus forming a system for working at heights. Please refer to the instruction manual of each component in your system for compatibility and correct use! Following these instructions accordingly is essential for your safety. Failure to do so can result in serious or even fatal accidents! Keep these instructions together with the product, accessible to all users, so they can consult them whenever is needed! Working at heights entails an increased natural risk. Perform all your work based upon an up to date risk assessment. If you can't bear all the risks, you must refrain from using that product.

**WARNING!** These instructions are a basic comprehensive guide to the safe use of the purchased equipment. They contain general information about the product, intended to help the user, but cannot cover all the situations that may occur in the daily activities and cannot in any case replace the specialized training courses for safety at heights. This PPE against falls from heights can only be used by well-trained users, who are familiar with the relevant legislation and who have successfully completed a special safety training course for working at heights.

**WARNING!** For works with risk of falling from heights or in depths, a risk assessment must be carried out in advance in accordance with current regulations and legal provisions (EN standards or specific national rules) that will provide adequate measures for safety and rescue!

**WARNING!** Instructions for use are updated when technical or legislative changes occur. The latest version of the instructions overwrites previous versions and is the only valid version. Please make sure you follow the instructions of the most recent version. You can download the most recent instructions from our website [www.vertiqualsafety.com](http://www.vertiqualsafety.com) by accessing the section of each product. For help or additional questions, please contact us at [office@vertiqualsafety.com](mailto:office@vertiqualsafety.com) or Tel. (+40) 0365/882143.

**WARNING!** The user must be medically fit and capable to ensure his own safety and act accordingly in possible emergency situations! Seek medical approval according to the national legislation in force!

**WARNING!** If the product is re-sold outside the original country of destination, the reseller must provide these instructions manual in the language of the country where the product will be used.

## FIELD OF USE

Along with other tested and certified components, the Multifunctional (fall arrest and suspension work)-Full Body Harnesses are used in fall arrest and rope access work systems. The purpose of this systems is to stop the free fall of the user, and to transfer the remaining shockload/force to the body in an amount that she or he can survive without serious body damage while holding the users body in a proper position until he or she is rescued.

The product must be used exclusively as a PPEaF (Personal Protective Equipment against Fall), in usual environments with temperatures between -30°C and +50°C, without potentially explosive atmospheres, far away from flames, sparks or hot metal splash. Avoid contact with sharp edges, electricity, chemicals, corrosive solutions and substances, excessive heat, oils, paints or any other contaminants. The structures used for anchoring have to meet the requirements of EN 795:2012 or CEN/TS 16415:20017, must have NO sharp edges and must be capable to withstand minimum 12 kN for full metallic anchors and 18 kN for any other types of anchors. The anchor point must be located as high as possible above the user and as close as possible to the vertical axis of the user's position, thus reducing the fall distance and prevent pendulum accidents. The minimum free space below the user (fall clearance) must be ensured to prevent hitting the ground or any obstacles, while the fall is arrested.

Compatibility based upon specifications/standards/norms: (For any combination with a product, you must perform your own dedicated compatibility check).

EN 361 front (sternal) attachment points are compatible with:

- EN 353-1
- EN 353-2
- EN 354 in conjunction with EN355 (shock absorbing lanyards)
- EN 360
- EN 12841 type A

EN 361 back (dorsal) attachment points are compatible with:

- EN 353-2
- EN 354 in conjunction with EN355 (shock absorbing lanyards)
- EN 360

EN 813 central (ventral) attachment are compatible with:

- EN 341 class A, B, C, D
- EN 12841 type C

## DESCRIPTION

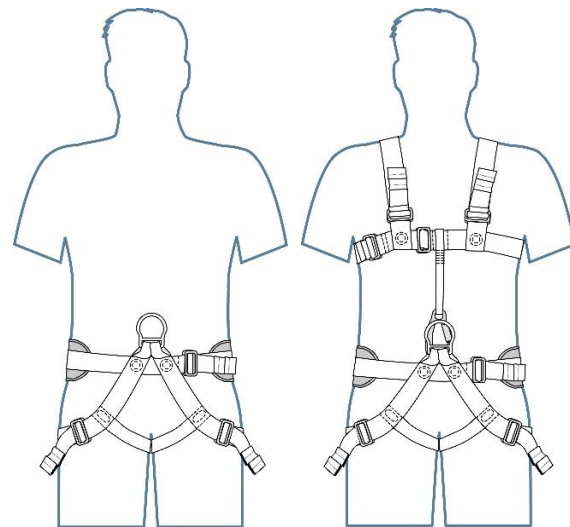
V84 WRO harnesses are made of 45 mm wide, high tensile PES webbings. The hardware used for these harnesses is made out of high-strength aluminum alloy and stainless steel.

The V84 type is comprised of a sit harness (EN 813:2008) and a detachable chest harness. When the chest harness is connected accordingly to the sit harness, it will allow using it as a full body harness (EN 361:2002) having a sternal attachment point ("A" marked textile loop).

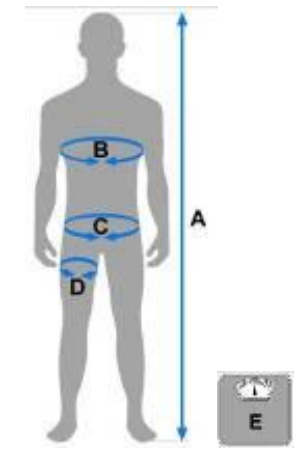

V84 harnesses are equipped with simple "classic" buckles made of high tensile stainless steel.

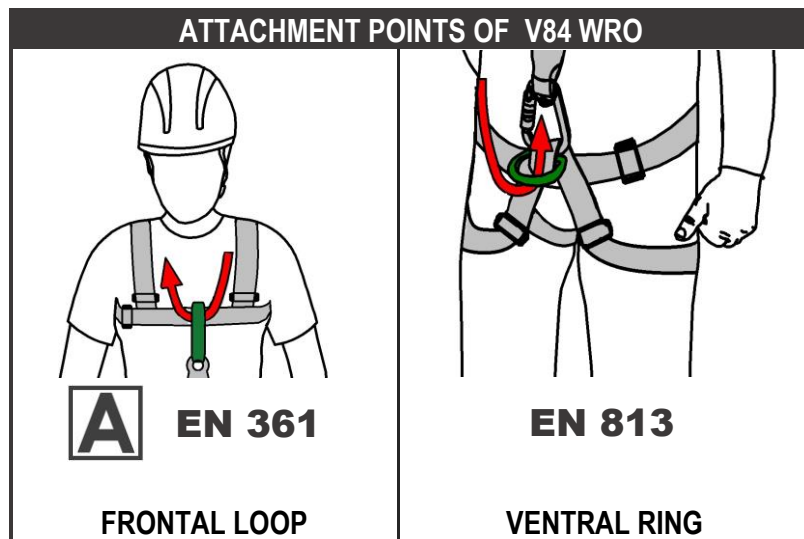
A chest ascender can be installed on the V84 harnesses using a  $\Delta$  shaped EN 362:2004 connector. This must be installed into the centrally located twin loops coming from the legs. The  $\Delta$  shaped EN 362:2004 connector must be located through these loops in parallel to the central rope access ring.

These harnesses are tested additionally with a dummy weighing 150 kg, being subjected to greater loads than required by the actual EN 361:2002 standard. **The harnesses belonging to the VERTIQUAL series can be used by persons weighing up to 150 kg (including equipment). In this case, the shock absorbing lanyard used (or other fall arrest device) must be approved and capable for the higher user weight of 150 kg.** The energy absorber must also be capable to offer the same performance and to reduce the shock force below 6 kN, in case of a fall, while working with higher user weight. For this purpose, we recommend using shock absorbing lanyards of the MAGNUM series (tested and certified for users between 50-150 kg).



Bellow, approximate dimensions [cm] of the standard sizes are presented:

DIMENSIONS	
	 <b>XXL-XXXL</b>
<b>A</b>	160-195 cm
<b>B</b>	80-130 cm
<b>C</b>	80-125 cm
<b>D</b>	50-80 cm
<b>E</b>	50 - 150 kg



**WARNING!** If there is any doubt regarding the condition of the equipment it must be sent to the manufacturer or to an authorized representative of the manufacturer for a professional evaluation.

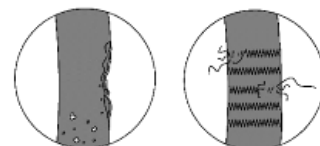
**WARNING!** Prolonged suspension onto the equipment may lead to suspension trauma, which can cause loss of consciousness or, in extreme cases, even death!

**WARNING!** If the risk falling cannot be completely eliminated by employing a **restraint system**, it is thus essential to your safety to use it in conjunction with proper **fall arrest system!** The additional fall arrest system will be connected only to the "A" marked attachment point on the harness and will be comprised by suitable components, including a mean to reduce the shock generated by the fall below 6kN!

**WARNING!** The ventral ring located on the waist belt is NOT suitable for use in fall arrest systems! Use the ventral ring only for rope access, positioning or restraint purposes!

**WARNING!** During use, it is important to monitor your equipment in order to identify possible damages inflicted in use, without being aware of it. Periodically check every fastening and adjustment elements on your harness!

 **VISUAL CHECKS!** The harness must be immediately removed from service if:



1. The marking/label is missing or is unreadable.
2. Damage has been identified (incisions, cuts, tearing, worn seams, discoloration, hardened or thinned areas, burns, melted areas, rusted or deformed metal parts, defective buckles) or if any abnormalities of the parts or structure have been found. To the right, some examples of damages are illustrated:
3. Contact with paints or unknown chemicals had occurred (irreversible contaminations).
4. The harness was involved in a fall arrest or had been subjected to heavy loading.
5. The integrity of the equipment is questionable and the inspection log is incomplete or missing.
6. The equipment was in service longer than **10 years**.

If one of the shown damage is observed, you must stop using this product instantly.

### FITTING THE HARNESS:

**A.** Hold the harness by the ventral aluminum ring and gently swinging it up and down to untangle the straps.

**B.** Loosen or open all buckles and then dress the harness as follows:

**V84 type** is made of two parts: a sit harness and a chest harness. Dress the sit harness similar to a trouser. Insert each leg through the waist and leg loops, then tighten the waist strap. Dress the chest harness similar to a vest and then use the integrated connector to attach it to the sit harness. The connector will be inserted in the loop which holds the ventral ring of the sit harness (check images below!).

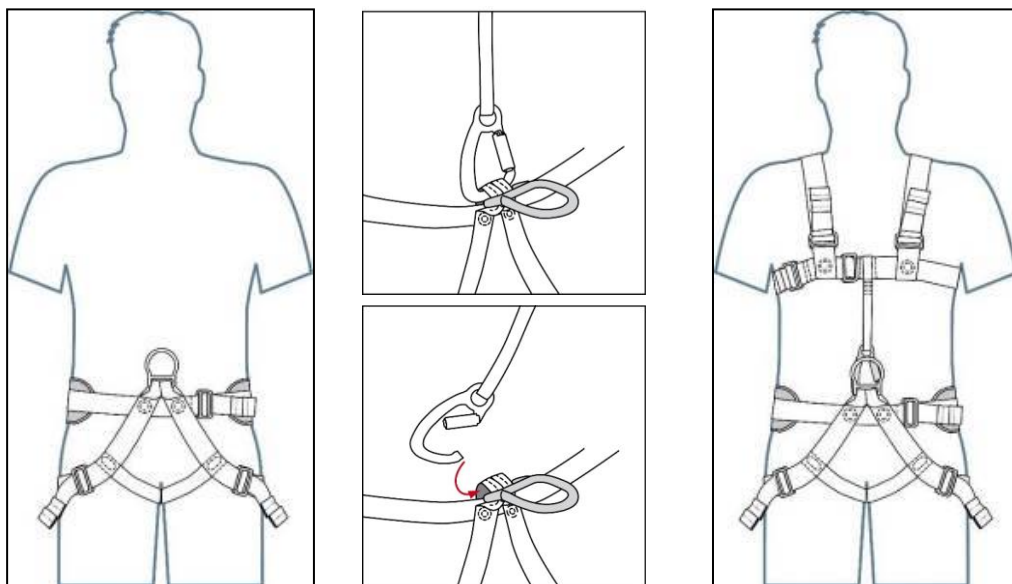
**C.** All straps will be tightened so that one or two fingers can slide in between the body and the strap. If the adjustment is too tight the harness will be uncomfortable and the user will have difficulties working. Insufficiently adjusted or loose straps can lead to serious or even fatal accidents!

**D.** Make sure that all buckles are closed and locked, straps are not twisted, all free strap ends are held tight by the elastic rings or rubber sliders on the harness.

**E.** A harness fitted correctly will have the frontal loop (marked with "A") located in the lower half of the sternum.

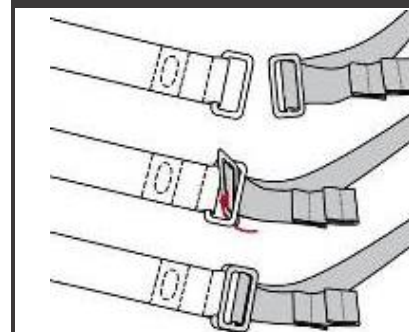
**F.** Before working, it is recommended to perform a short suspension test from a small and safe height, in order to check the adjustments and the comfort of the harness.

### CHEST HARNESS ATTACHMENT

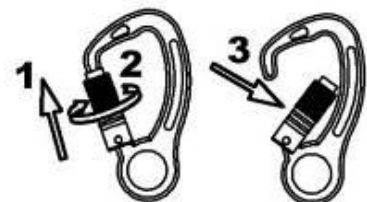


The seat harness can be used as standalone EN 813:2008 harness with central (ventral) attachment point. To become EN 361:2002, add the chest harness. **Connect it as shown in the drawing above!**

### BUCKLES

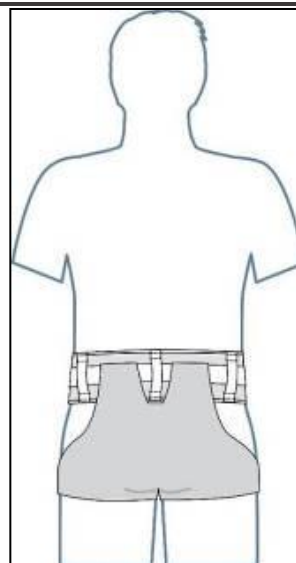
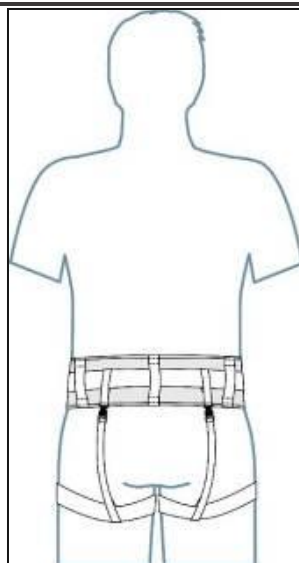


### Tri Lock carabiner



1-slide 2-twist 3-push

The V84 can be worn with flexible rear leg loop holders or with the textile, canyon side protection.



**RESCUE!** A rescue plan must be made before starting the work at heights or depths! It is mandatory to set up and know the specific rescue plan for every situation and to have designated personnel and appropriate means of intervention!

**Repairs** or any other modifications can be performed only by the manufacturer! Any repairs, modifications or additions (even minor ones) performed by anyone else are strictly forbidden, lead to the loss of the manufacturers guarantee and any responsibility related to this product!

**The SERVICE LIFE** \* of PPE against falls, made of textile materials is 6-8 years under normal conditions, but a **maximum of 10 years** \* from the date of first use. The date of the first use must be noted in the logbook, otherwise the date of manufacture is considered as the date of the first use. **The storage** of new, unused products under optimal conditions (darkness, dryness, original packaging, constant temperature, without chemical vapors, etc.) should not exceed **2 years**. \* PPE that belongs to a single user, has not been used excessively and not often, has been subjected to regular checks by experts, has been found to be "safe" and recorded in the test book, has a complete product history, has not been involved in a fall, is carefully treated and cared for, have been stored in accordance with regulations, have not come into contact with oils, fats or aggressive chemicals, (attention - incomplete list) can remain in use for up to 10 years. Intensive use, heavy and demanding working conditions, incorrect application, incorrect maintenance and care can greatly reduce the service life of the equipment. Certain events, such as falls, high exposure to heat, exposure to corrosive chemicals, can limit the use of your equipment to a single time. A generally valid, binding statement about the duration of use of textile PPE cannot be made, as this depends on a large number of factors such as UV light exposure, working conditions, contact with various substances, etc. The service life of the equipment ends when one of the cases mentioned in the previous chapter occurs or when the inspector / certified expert decides this on the basis of other facts. The theoretical total service life of textile PPE against falls (Storage time + Service life) is limited to a maximum of 12 years from the date of manufacture.

#### **STORAGE, MAINTENANCE, TRANSPORT**

The equipment should be stored in a dry, cool and well-ventilated room, if possible, in its original packaging. While in storage, this PPEaF must be protected from UV radiation, solar radiation, heat, sparks, incandescent metal splash, electricity, chemicals, sharp objects, heat sources, dust, cement, oils and greases or any kind of contaminants. Buckles and metal parts can be cleaned using a soft cloth or using compressed air. If necessary, the textile parts can be cleaned using warm water (30°C) then rinsed. Drying the wet equipment will be made by hanging it in well-ventilated room away from any heat source. When fully dried, the equipment can be stored accordingly in its packaging (bag or box). The use of disinfectants is forbidden, as long term effects of various types of disinfectants and concentrations are not known! Transport of the equipment must be made in its protective bag or box, away from any factor that could contaminate or inflict damage.

**MARKING:** all VERTIQUAL® PPEaF are fitted with a label which contains the following elements and essential information: name of the manufacturer, name of the model and version (if applicable), size, manufacturing date (month and year), standards/norms the product complies to, European CE marking with identification number of the notified body, allowed user weight for the sit harness [kg], graphic instructions regarding buckle operation, international symbol/icon for reading the instructions before use and the product's serial number. The label must be always present and readable!

#### **PERIODIC INSPECTIONS AND CHECKS**

The user must perform a visual and functional inspection of his equipment before and after each use! During use, it is important to monitor your equipment in order to identify possible damages inflicted in use, without being aware of it. The equipment must be inspected **at least once every 12 months** or more often if required, depending on the working conditions and compulsory after every incident it has been involved in. Inspections can be carried out only by the manufacturer or by an competent person (competent for PPEaF checks based upon local legislations). **If the periodic inspections were not performed at least once every 12 months, were carried out by unqualified persons, or without strictly respecting the manufacturer's instructions, the warranty is lost and the manufacturer declines any responsibility related to the equipment!**

**Inspection Log!** Every PPEaF is delivered with an Inspection Log. This document must be kept safely and sent along with the product for every inspection.

The Log (table) contains important data regarding your equipment. The date, signature of the inspector and the results are also recorded. The **date of first use** must be written in the Inspection Log by the user!

**WARRANTY AND LIABILITY!** The manufacturer offers a **24 month** warranty for this PPEaF from the date of first use. The user has the obligation to write the date of first use in the Inspection Log. If the date of first use was not filled in, the warranty period will be calculated from the manufacturing date. The warranty is applicable only for material or manufacturing defects! Damage resulting from normal wear and tear, corrosion, poor maintenance (or no maintenance at all), those resulted from carelessness, accidents, fall arrest, unauthorized repairs or modifications, wrong use of this PPEaF or any other reasons are NOT covered by the warranty!

The warranty does NOT cover the springs of the carabiners and automatic buckles as these can be damaged due to inadequate storage or improper use.

Warranty claims only apply to the product. All claims by the user or any other party for the direct, indirect or any consequential damages resulting from the use of this PPEaF are excluded from guarantee and liability assumptions. Any claims in this regard are hereby expressly rejected.

The user must be informed regarding the dangers of work at heights and depths. He should be aware of the risks and he has to be aware that he is the only responsible for eventual damage, accidents or even death which may result from the use of this equipment. If the user is unable to do so or if he does not have the competence to do so, he cannot use this PPEaF.

VERTIQUAL Engineering SRL herewith rejects any liability claims for direct, indirect, accidental or consequential damages resulting from the use of this PPEaF (Personal Protective Equipment against Fall).

This products comply with the **European PPE Regulation (2016/425)** and the harmonized standards:

- **EN 361:2002 and EN 813:2008** for V84 WRO

**The EU type examination** was carried out by **NB 1019** (VVUÚ, a.s. Adress: Pikartská 1337/7, 716 07 Ostrava-Radvanice, Czech Republic). The production control is carried out by **NB 2756** (INCDPM - The National Research and Development Institute for Occupational Safety-Bucharest).

The **EU Declaration of Conformity** can be downloaded from our website [www.vertiqualsafety.com](http://www.vertiqualsafety.com) by accessing the product's dedicated section.

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