

# Instruction manual for Multifunctional (fall arrest, work positioning and suspension work) Full Body Harnesses, type V85, V86, V88, V8, V80 and V83, certified according to EN 358, EN 361 and EN 813

V85 ECLIPSE

V86 EQUINOX

V88 HAWK

V8 DISCOVERY

V80 REBEL

V83 STRATOSPHERE



Thank you for choosing a VERTIQUAL® harness! 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!

## 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, work positioning and suspension work)-Full Body Harnesses are used in fall arrest systems. The purpose of this systems is to stop the free fall of the user, absorbing most of the shock and distributing the remaining force evenly, 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, 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.

Besides the fall arrest attachment points, the Multifunctional-Full Body Harnesses include two lateral rings for use in positioning or restraint systems and a ventral attachment point for use in rope access systems.

**DESCRIPTION**

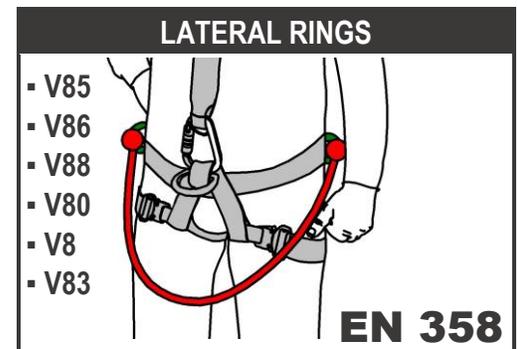
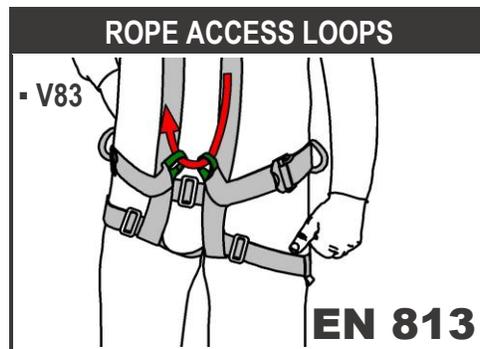
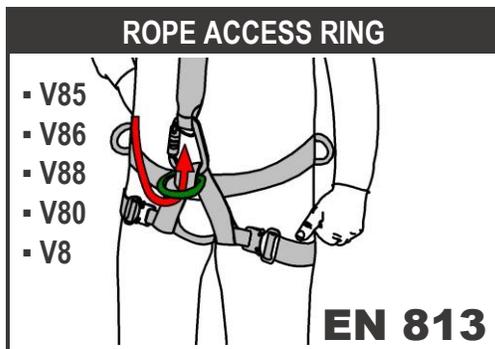
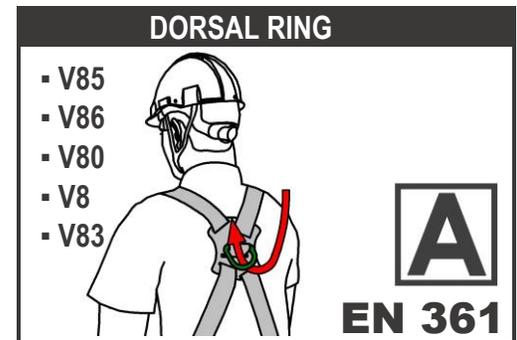
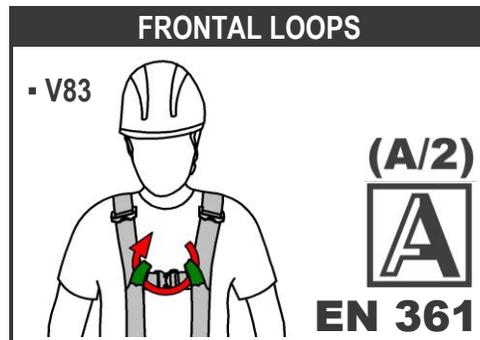
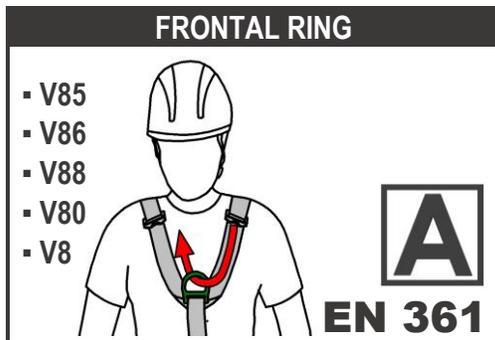
VERTIQUAL® harnesses are made of 45 mm wide, high tensile webbings. The webbings used for the EVO, Power&Comfort and Galaxy series are treated against oil and dirt impregnation. Webbings of the Galaxy series (V85, V86 and V88) have an additional treatment (Ag+ ions), offering anti-microbial and anti-fungal protection.

A Multifunctional (fall arrest, work positioning and suspension work)-Full Body Harness efficiently integrates a full body harness (EN 361), a positioning belt (EN 358) and a sit harness (EN 813). The positioning belt has two lateral rings for work positioning or restraint and a third, central ring for rope-access works. V83 model is equipped with a pair of loops in the front part of the waist, for rope access purposes which have to be connected together. The fall arrest attachment points of this harnesses are the DORSAL RING and the FRONTAL RING in the chest area, both marked with „A“. The pair of loops at the chest area of V83 are marked with „A/2“, they can be used as a fall arrest point only when connected together. The hardware used for these harnesses is made out of high-strength aluminum alloy or high tensile steel (corrosion protected). Depending on the model, the buckles can be simple manual buckles „classic“ or patented automatic quick buckles COBRA or COBRA Pro-Style.

A chest ascender can be installed on the V85, V86 and V88 harnesses using a Δ (delta) shaped connector. This must be be installed into the centrally located loop of the waist belt (check ASCENDER SET section for correct attachment). All multifunctional harnesses have paddings for the leg straps and a strong wide padding for the waist belt. The V85 and V86 models and all Evo and Power&Comfort versions of these harnesses, are equipped also with shoulder paddings.

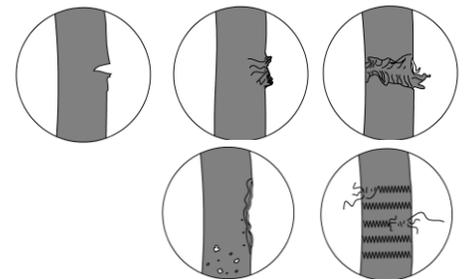
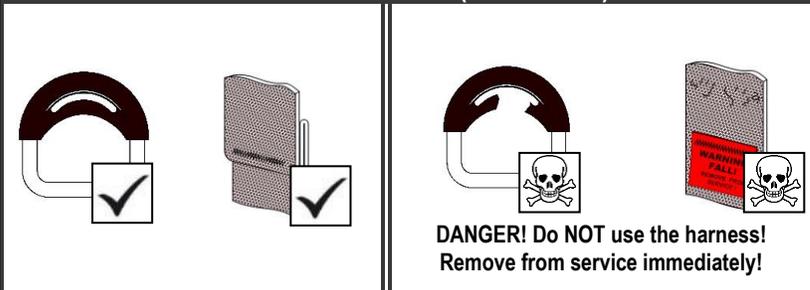
For work positioning applications, a certified positioning lanyard (EN 358) will be needed. This lanyard must be connected to the lateral rings of the waist belt and can be used only in work positioning systems or restraint systems. Any other uses are forbidden! The positioning lanyard must be passed around the anchor structure and the lanyard ends will be connected to each lateral ring using a certified connector. The length and position of the lanyard must be chosen in such way that the maximum fall distance, in case of slippage, will not exceed 50 cm.

Multifunctional-Full Body Harnesses are tested additionally with a dummy weighing 150 kg, being subjected to greater loads than required by the actual EN 361 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 for 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).



**👁 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**.

**FALL INDICATORS (OPTIONAL)****PARKING ELEMENTS (OPTIONAL)**

When using forked lanyards, having one string connected to the anchor point, connect the second, unused string, only to approved lanyard parking elements on your harness! (e.g. a plastic ring).

In case of fall, a lanyard parking element will break easily, allowing correct deployment of the absorber!



**FITTING THE HARNESS:**

- A. Hold the harness by the dorsal ring and gently swinging it up and down to untangle the straps.
- B. Loosen or open all buckles and then, depending on the model you have, dress the harness as follows:

**V83** models will be dressed similar to a vest.

Place the harness over the shoulders, then insert your hands through the shoulder loops.

Make sure the straps are not twisted then close the chest buckle, waist buckle and each leg buckle.



V83

**V86 and V8** models will be dressed similar to a trouser. First, open and unhook the ventral carabiner from the waist loop. Insert each leg through the waist and leg loops, then tighten the straps. Pull the upper part of the harness from behind over your head, insert the carabiner into the central loop of the waist belt (the same loop that holds the ROPE ACCESS ring). Make sure the straps are not twisted then close and secure the carabiner and all the buckles.



V86 &amp; V8

**V80 & V85** models will be dressed similar to a trouser. Insert each leg through the waist and leg loops, then tighten the waist strap.

Loosen the shoulder strap enough so you can pull the shoulder part from the side over your head. Make sure the straps are not twisted then close and secure all the buckles.



V80 &amp; V85

**V88** model is made of two parts that need to be connected together. The harness can be used only when the two components are attached! (see below image) Dress the sit part of the harness similar to a trouser. Insert each leg through the waist and leg loops, then tighten the waist strap.

Dress the top part similar to a vest and make sure you pass the horizontal chest strap through the designated pocket of the strap that connects the chest part with the sit part.



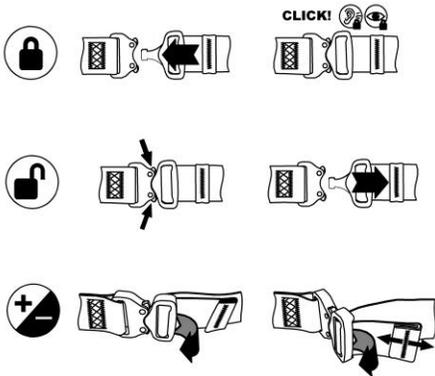
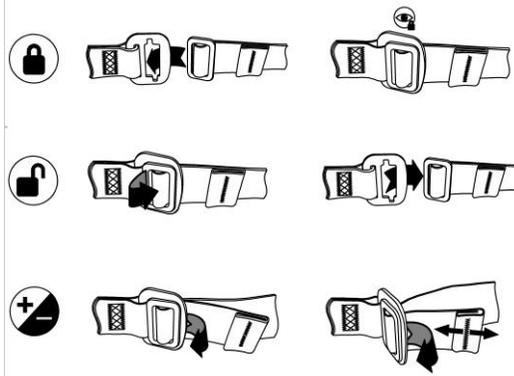
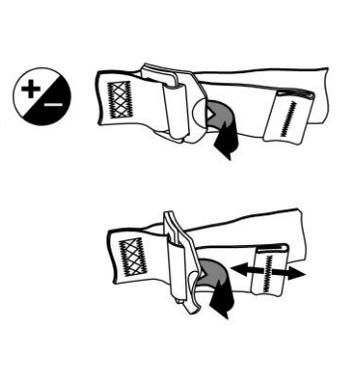
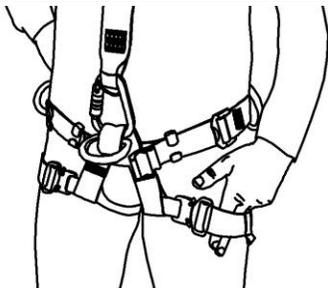
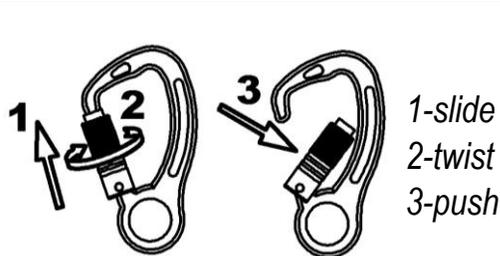
V88

C. All straps will be tightened so that one or two fingers can slide in between the body and the strap (check the images below). 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 dorsal ring located in the middle between the shoulder blades and the frontal ring/loops located in the lower half of the sternum.

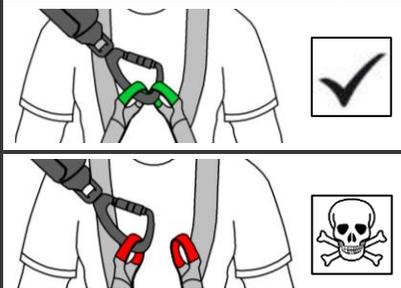
F. Before working, it is recommended to perform a short suspension test from a small and safe height, in order to check the adjustments and the comfort of the harness.

**Automatic (CLICK) buckles****Manual (CLASSIC) buckles****Adjuster buckle****Checking straps adjustment****Tri Lock carabiner (V86 and V8 only)**

1-slide  
2-twist  
3-push

**WARNING!**

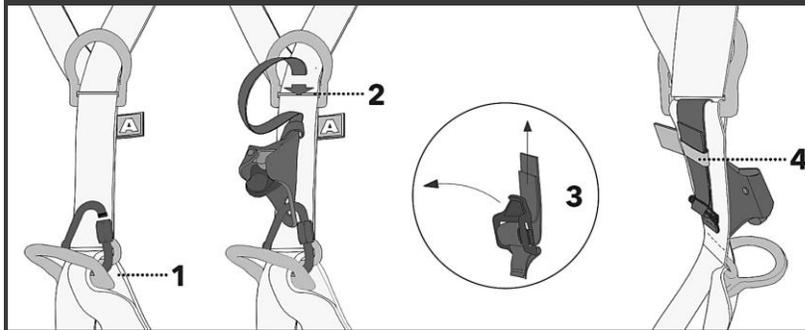
Textile loops must be connected together!



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

## ATTACHING THE CHEST ASCENDER SET (OPTIONAL)



**The chest ascender set is compatible with V85, V86 and V88 models!**

1. Attach the delta connector to the same textile loop that holds the rope access ring (ventral area, front-center);
2. Connect the ascender to the delta connector, screw and tighten the nut correctly, then pass the webbing between the two beams of the sternal ring;
3. On the other side, pass the webbing through the elastic retaining ring first and then through the small adjusting buckle fitted on the harness.
4. Adjust the length of the webbing to the desired level using the buckle, then hold the free end of the webbing with the elastic retaining ring.

### ATTENTION!

Make sure the delta connector is closed & tightened (3 Nm) before use!

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 authorized inspections center. **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 (425/2016)** and the harmonized standards: **EN 361:2002, EN 358:2018 and EN 813:2008**. The **EU type examination** was carried out by **NB 1019** (VVUÚ, a.s. Adress: Pikartská 1337/7, 716 07 Ostrava-Radvanice, Czech Republic) for model V80 and **NB 2756** (INCDPM - The National Research and Development Institute for Occupational Safety-Bucharest) for models V8, V83, V85, V86, V88. The production control for all models 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.