



**AVA**SPORT®  
PARAGLIDING and SKYDIVING EQUIPMENT



Owner's manual  
Tanto

## Owner´s manual 02.09.2010

### Paragliding Harness Tanto

With the Tanto you got one of the most comfortable and most functional harnesses, which is available on the market at present. We thank you for the confidence, for buying the Tanto harness.  
Please read this operating instructions carefully and consider, that AVA Sport Ltd. can not be made liable for accidents and damage, which result from disregarding of the operating instructions.

#### Technical description:

- ✍ Aerodynamic cover of the pilot
- ✍ EN & LTF certified protector
- ✍ Running through shoulder belts for perfect comfort
- ✍ Max. pilot´s weight: 120 kg
- ✍ Weight of the harness: 4.8 kg
- ✍ Seatposition adjustable in flight

#### Overview:



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| <p>a) Possibility to store water-ballast-bag<br/> b) Lateral chest-belt adjustment<br/> c) Fixation lateral chest-belt<br/> d) Leg belts with combi-safety-system<br/> e) Integrated speed-bar (Ladder)<br/> f) Main suspension<br/> g) Cockpit<br/> h) Rescue system release-handle<br/> i) 1. Fixation (cover of the pilot)<br/> k) Zip fastener</p> |
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Illustration without cover!

## 1. Adjustment possibilities:

By the versatile adjusting possibilities of the Tanto we recommend in any case that all adjustments are done in a simulator before the first flight to guarantee an optimal seat comfort.

### Adjusting the chest belt:

The chest belt gets closed in combination with the leg belts. The length can be adjusted between the click-lock-buckles. An adjusting during flight is not possible.

### Adjusting the shoulder belts:

Please note that with correct adjusting the shoulder belts are felt with light pressure on the shoulders. With the shoulder belts you adjust the harness on the pilot's height, but also you adjust the seat position between sitting and lying.

### Adjusting the lateral chest belts:

Adjusting the lateral chest belts takes place as third step and offers on the one hand again the variation of the seat position between sitting and lying, on the other hand you adjust with the lateral chest belts the most comfortable seat position. During adjusting it should be paid attention to the fact that the body load is distributed evenly on shoulder belt and lateral chest belt. Please take care that the lateral chest belt is attached correctly to the main suspension's carabiners as shown at point c).

### Adjusting the leg belts:

When you put the harness on, please take care that the Click-Lock-buckles are closed correctly and audibly. The leg belts should be fastened tight but should leave still enough space, for the starting and landing phase, where the legs should have still some space to move. The length can be adjusted at the leg belts underneath the click-lock-buckles. An adjusting during flight is not possible.

### Adjusting the leg-cover:

The neopren-part of the leg-cover gets closed crosswise with the plastic buckles near the carabiners after the cockpit has been fixed into the therefore assigned zipper.

The inner leg-bag made of Nylon-fabric can be adjusted individually on the leg length of the pilot. The adjusting-fastener therefore are at the innerside of the leg-cover (where the fixation-buckles for the cockpit are).

In addition the angle of inclination of the leg-cover can be adjusted with the adjusting-fastener inside the protector-bag.

### Adjusting the seatboard's incline :

The seatboard's incline can be adjusted by the adjusting-fastener at the frontal edge of the seatboard.

### Speed-bar:

The speed-bar is generally built in and runs from the risers as follows: Rear ring at the neopren-cover, rear pulley-roll, middle pulley-roll, and then to the frontal pulley-roll at the seat-board.

### Water-ballast:

A water-ballast-bag (available as an accessory) can be placed into the harness under the seatboard's frontal edge (see overview illustration at point a)). The function of the rescue-parachute and of the protector-system have to be checked if a water-ballast-bag is placed into the harness!

## 2. Build-in of the rescue-system



After closing the container, by putting in the pins, remove the packing cords and put the release-handle in the therefore assigned



As last step secure one of the pins with a special thread to avoid an unintentional opening. (see next point)..



Connection showing to the upside and to the container opening

Put the bridle into the container of the harness. The connection to the handle must be also between the inner-container and the harness, as shown on the picture. That means it has to be on the inner side. So you can be sure that the rescue-system can be pulled out easily.

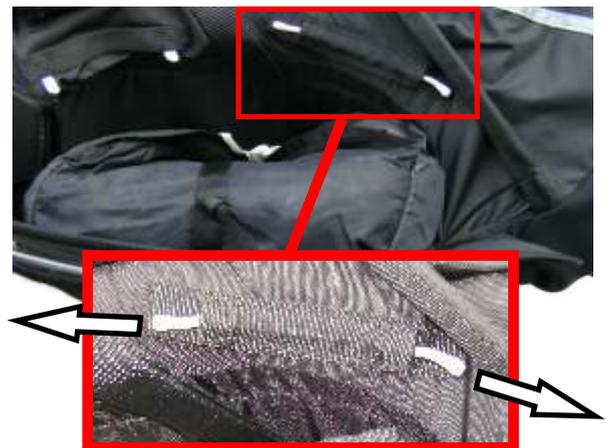


Put in the rescue-system container. The connected handle is showing to the seatboard and the container opening of the harness.



The connection to the handle runs between the two upper eyes. You have to take care that the connection of the handle is not hindered in any way and is still long enough, so that you can be sure that the pull is coming first on the closing-pins and not on the connection to the inner container!

### Attention !



Line must be free be moved



Close the container with two packing cords.  
Order:



After closing the container, by putting in the pins, remove the packing cords and put the release-handle in the therefore assigned pockets

## **Attention:**

**After every installation of a rescue-system in a harness there must be a test if the opening force is between 2 and 5 daN. If harness and rescue parachute are combined the first time a compatibility check have to be done by a authorized person!**

## **Back-protector:**

Only the original back-protector which is delivered with the Tanto is allowed to use. To build-in and -out the protector is reachable by the zipper of the back pocket of the harness.

For rebuilding-in the protector you have to take care that the protector is put in the therefore assigned pockets in the protector-bag of the harness. The Velcros of protector and protector-bag have to be fixed with each other to avoid an unintentional movement of the protector.

### **Usage:**

The protector should protect the pilot's back in case of a unintentional hard landing.

### **Description:**

The protector exists of a outer shell and a shock absorbing special softfoam. Both together are absorbing the energy of a hard impact.

### **Function:**

On a impact of the pilot the protector gets compressed and absorbs so the energy of the impact. This minimizes the probability of serious spine injuries but does not except it. Because the protector is very flexible you don't have to make any adjustments at the protector itself.

On waterlandings you should get rid of the harness as soon as possible, because the buoyancy of the protector may turn the pilot upside down and pushes him under the water surface.

There are no special restrictions concerning towing&winching.

In cases of emergency it's important that the pilot absorbs the impact with a little bit bended knees, because so the human body can stand 4-6 times higher impact-forces. If the pilot tries to compensate the impact with straight knees the complete energy is coming directly on the pilot's spine, so the protector can not work efficient or begins it's compensating to late.

### **Build-in:**

For building-in the protector you have to take care that the protector is put in the therefore assigned pockets in the protector-bag of the harness. The Velcros of protector and protector-bag have to be fixed with each other to avoid an unintentional movement of the protector.

## **Maintenance/Duration of life:**

The protector is maintenance free and can still be used after an impact, if you can not see any damages! But anyway avoid high temperatures (for example in the car) and contact with corrosive or etching substances. If, what normally is not necessary, the protector needs to be cleaned, just use water and soft soap.

The provisional duration of life are 5 years. Please give us a call after this 5 years, because then we have checked even older protectors' function and performance, and can decide over a longer duration of life. (What most probably will not be a problem).

## **Tandem flights:**

The Tanto is because of it's special shape not suitable for tandem flights. Neither as pilot's nor as passenger's harness!

## **Life span, replacing time of construction units, repair hints:**

The harness Tanto was built for high loads and strong use. Accordingly, for the choice of the materials particularly high criteria were set. However the life span depends also on the treatment of the harness by the pilot, so we recommend to check the harness from time to time, if there are faulty or damaged parts, which should be replaced or repaired then.

Especially take care of defective seams, which should be immediately repaired by an authorized workshop. Further you have the possibility to send us the harness for checking.

In order to prevent problems with the harness we recommend:

- avoid handling with fire and sharp edged articles near your harness.
- avoid unnecessarily long sun effect, because ultraviolet radiation destroys the molecular structure of the material
- avoid the contact with seawater or acid liquids.

## **Maintenance and control:**

The harness Tanto is more or less maintenance-free. But regular control in short periods gives you the guarantee of an unrestricted function of your belt system. Take particularly care that the Click-Lock-buckles stay free of dirt. If needed you can oil the Click-Locks a little bit.

## **Dealers:**

AVA Sport Switzerland:  
Flugsau GmbH, Gruobi 1, 6388 Grafenort, [www.avasportcentral.ch](http://www.avasportcentral.ch)

AVA Sport Germany / Austria:  
Bernd Hornböck, Görtschach 40, 9170 Ferlach [bernd@aigainstthegrain.at](mailto:bernd@aigainstthegrain.at)

AVA Sport France:  
Parapente Passion - 14 Rue Basse - 04500 Riez [www.avasport.fr](http://www.avasport.fr)

ISO 9001  
BUREAU VERITAS  
Certification



### Paragliding harness / Gurtzeug für Gleitschirm

Tanto

Test reference-No / Prüf-Nr. \_\_\_\_\_ **GZ 011.2010**

Manufacturer / Hersteller \_\_\_\_\_ **AVA Sport Ltd**

Maxi Load / Max Anhängelast \_\_\_\_\_ **120 kg**

Integrated Parachute Cont:  
Integr. RG-Cont:

Ja-Yes

Periodic Inspection After:  
Regelmässige Nachprüfung Nach:

Conformity Checked By:  
Stückgeprüft Durch:

Monat / Jahr :  
Month / Year :

Certification Date / Prüfung Datum \_\_\_\_\_ **23.09.2010**

Before use refer to the user's manual!

Vor Gebrauch Betriebsanweisung lesen!

[para-test.com](http://para-test.com)

Conformity tests according to **2. DV LuftGerPV §1, Nr. 7 c** standards carried out by:  
Angewandte Prüfrichtlinien / Normen durch:



paragliding by air turquoise

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Conformity tests according to **EN 1651:1999** standards carried out by:  
Angewandte Prüfrichtlinien / Normen durch:



paragliding by air turquoise

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