



# MINIMAX BUMP

User's manual

English version

SUPAIR-VLD PARC ALTAÏS 34 RUE ADRASTÉE 74650 ANNECY CHAVANOD FRANCE

45°54.024'N / 06°04.725' E

RCS 387956790

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Thank you for your choice of an MINIMAX BUMP. We are proud to join you on your journey in our common passion : paragliding.

SUP'AIR has been designing, producing and selling accessories for free flying activities since 1984. By choosing a SUP'AIR product you benefit from almost thirty years of expertise, innovation and listening. This is also our philosophy : working endlessly to develop better products and to maintain a high quality production in Europe.

We trust that you will find this user's manual comprehensive, explicit and hopefully pleasant to read. We advise you to read it carefully !

On our website www.supair.com, you will find the last up to date information about this product. If you have any further questions, feel free to ask one of our retailers. And of course, the entire SUP'AIR team are at your disposal through info@supair.com

We wish you many safe flying and enjoyable hours, and happy landings

The SUP'AIR team

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## Introduction

Welcome to the tandem world.

With theMINIMAX BUMP, you are equipped with a tandem harness passenger designed with an Bumpair protection. This harness is targeting intensive professional use.

The following harness can also be used in solo flights.

The Anti Balance System enables a good dampening and flight stability.

After reading this manual, we suggest you check your harness by hanging in it before flying.

N.B : Three important icons will help you when reading this manual







# Technical specifications

Tech	nical sheet			
A	Back height (cm)			
В	Leaning setting height (cm)			
C	Seat length (cm)			
D	Seat (cm)			
V	Carabiners height (cm)			
F	Carabiners distance (cm)			

	Model
Passenger size	160-190 cm
Passenger's weight	50-100 kg
Harness weight	3190 g
Designed for	Paragliding only
Back height (cm)	62 cm
Leaning setting height (cm)	34 cm
Seat length (cm)	47 cm
Seat (cm)	38 cm
Carabiners height (cm)	44 cm
Carabiners distance (cm)	34-47 cm
Impact damping system : Airbag (Volume)	No
Impact damping system : Bumpair (Thick- ness)	yes
Homologation	EN 1651 - LTF
Flight : tandem (Pilot- Passenger)	Yes (Passenger)
Flight : acrobatic flying	No
Take-off : Winching	Yes
Quick-out carabiners compatibility	No

This harness is delivered with two 30 mm Biners ( 138 g. for the set ).

# Harness

- 30 mm Aluminium self-locking biner
- Polypropylene seat plate
- Bumpair 17 XC



# Harness overview

This illustration will help you during your reading.

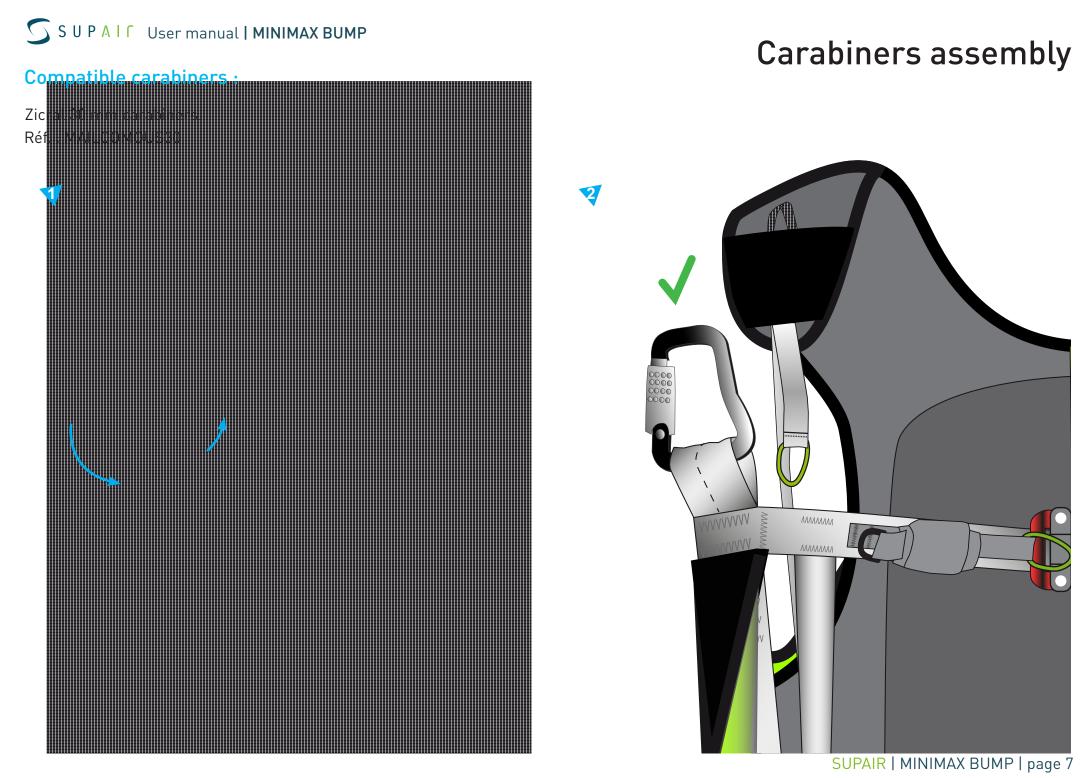




Ventral buckles
Safe-T-Bar
Thigh strap buckles
Ventral width adjustment
Leaning setting
Shoulders'straps adjustment



# **Carabiners** assembly



# BUMPAIR assembly



#### A Leaning angle setting

Pull up to release.

Set the angle of leaning by tightening the snapper (towards a more vertical position) or the black webbing (towards a more horizontal position).

#### B Shoulders' straps adjustments.

Tighten the shoulder straps by pulling the finger loop down.

When adopting a reclined flying posture, the shoulder straps must enhance in-flight comfort levels by supporting the upper back.

The shoulder straps support, greatly helps the comfort level. It should be set precisely. You must find the correct tension between the side and shoulder straps adjustments.



#### <sup>C</sup> Chest strap adjustment.

This adjustment is important as it acts on the ABS and the harness overall stability. The tighter the more stable. The opposite is true while enabling weightshift steering.

To tighten the chest strap:

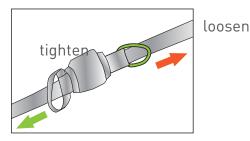
Place your left hand in front of and pass the risers to grab the right self-locking Biner.

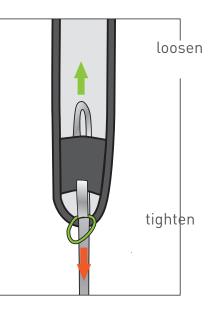
With the right hand, grab the chest strap finger-loop and pull it to tighten the chest strap.

To loosen the chest strap:

Place your left hand in front of and pass the risers to grab the right self-locking Biner.

With the left arm, shorten the distance between the risers and pull the fingerloop in the opposite direction to loosen the chest strap.





Position setting

#### Pre-Flight control.

# Flight phases

- Check that the harness, the carabiners, the spreader bar and in general all your flight equipment are not damaged. As the captain, you are responsible for the safety of the crew
- Be certain for the handle cables to be securely fastened in place inside their respective reserve parachute pocket housings.
- Check that your personal settings have not changed.
- Check that all zippers and buckles are closed.
- Check that the speedbar/accelerator is correctly connected and adusted.
- Check that no rigging line or other object comes in contact and interferes with the rescue parachute handle.
- Make sure that the self-locking carabiners are locked and connected to the paraglider.
- Be certain for the accelerator/speed-bar line not to ride through the reserve parachute handle.

### Takeoff



After a thorough weather conditions analysis was conducted and the decision to fly was made, put your harness on and follow the next steps :

• Fully close the leg straps, Safe-T-bar and chest strap buckles..



• Takeoff maintaining a vertical posture and push yourself inside the harness but only once away from the ridge.



Do not let go the brakes when close to the terrain.

# In flight.



Set the distance between the two carabiners according to the aerology of the moment, and the wing manufacturer's recommendations.

### Speedbar use.

We recommend using the speed-bar cautiously due to the increased risk of a partial or full frontal collapses.



Use the speed-bar/accelerator (transitions) only when far away from the ridge and in calm weather conditions as the wing becomes more sensitive to turbulence when accelerated. If you feel a loss of tension in the speed-bar/accelerator, stop pushing it and apply a light brake pressure on the toggles to prevent the glider from experiencing a potential frontal collapse.

Beware not to push on the speed-bar/accelerator to enter the harness after takeoff (it is not a foot-rest) or there could be the risk of a frontal collapse taking place as a result.



To use the speed-bar/accelerator, backpedal and grab the bar with the back of your shoe, push and use the second foot to stabilize it or to grab the second bar.

Apply pressure symmetrically to the first stage (first bar), when reaching the maximum enabled distance, then push on the second stage (upper bar). To decelerate, reverse the procedure.

# Landing

Always be certain to have enough altitude to make a landing approach corresponding to the weather conditions of the moment and terrain. During the landing approach, never make hasty maneuvers. Always land upwind in a standing posture and be ready to run upon touchdown if necessary.



During your final approach, use as much airspeed as possible based on the weather conditions of the moment, then gradually reduce the glider air speed by pushing the toggles all the way down until contact with the ground is made. Beware not to brake too soon and too rapidly and too deep which could lead to a stall and a dangerous landing.

During high wind speed landings, turnaround and face the wing as soon as ground contact is made and move toward the wing while braking symmetrically to deflate it.

Do not land in a seated position as it is dangerous.

Flight phases

# Using the reserve parachute

#### Throwing the reserve parachute.



It is strongly recommended to frequently check your reserve parachute handle location while in flight. This exercise should be executed instinctively and will increase your chances of a successful parachute extraction in case of an emergency.

Estimate your AGL (Altitude Above Ground Level) which if high enough may make it worth trying to bring your wing back to a normal flying configuration. If in doubt quickly deploy your emergency parachute.

#### Deploying a rescue parachute should only be done in an emergency.



With a strong lateral and then vertical tug, pull the handle towards you and then throw the parachute away from you (including the container and its handle) toward a clear unobstructed area of the sky. As soon as the parachute deploys, bring as much of the glider as possible toward you by pulling symmetrically on the "C" or "D" risers or on the toggles/brakes. Be prepared to land by adopting an upright position with knees together and legs slightly bent. Prepare to roll down, hands on your chest, ankles together with pivoting hips and shoulders in a Paragliding Landing Fall (PLF) configuration.

# Towing

To takeoff under tow you must be equipped with a quick release specially designed for the task. Connect the towing release system to the main carabiner attachment points in accordance to manufacturer recommendations. Before towing you should consult with a competent towing outfit about safety recommendations.

# Mandatory controls

#### Mandatory biannual inspection.



Ascertain parachute deployment functionality by pulling the handle to activate a clean POD extraction sequence.
Inspect the harness for wear and tear.

### Annual check



- An annual deployment and repacking of the reserve parachute must be conducted by competent and certified personnel.

#### Harness cleaning and maintenance.

It is a good idea to clean your harness from time to time. We recommend using a brush and soft solvents only ( soap or mild cleaning agents ).

Rinse thoroughly. Never use aggressive chemicals such as strong solvents which could be harmful to the fabric, webbings, stitching and weaken the overall integrity of the harness.

The zippers should be lubricated from time to time using a silicon spray.

If you regularly use your harness in a dusty environment (dirt, sand, etc...) we advise you to regularly check and maintain your carabiners and buckles : clean them with a mild detergent, then, blow-dry them fully but DO NOT LUBRICATE !

Prior to using them conduct a thorough carabiners and buckles checkup to insure their full functionality.

If you use your harness in a marine/sandy/salty environment, pay particular attention to your gear and follow a regular rigorous maintenance routine.

If your air bag is damaged, have it professionally checked and repaired if necessary.

#### Storage and transport.

When not in use your harness should be stored inside your paragliding backpack in a dry cool and clean place protected from UV exposure. If your harness is wet please dry it thoroughly before stowing it away.

During transport protect the harness against mechanical or UV deterioration (use a bag). Avoid long transports in wet conditions.

## Life-span



Once every two (2) years a thorough harness inspection must be conducted :

- Webbing wear and tear (no excessive wear nor rip beginning or unwanted folds).
- Buckles and carabiners (functionality wear and tear).
- The BUMPAIR integrity (especially after a strong impact ), in other words, no holes, tears or rips.



The threads and fabric used to manufacture the MINIMAX BUMP were specifically selected for their quality and resilient capacities. However in particular instances such as long term UV exposure abrasion, contact with damaging chemicals, general wear and tear, the harness will need to be inspected at a professional certified repair facility. Safety comes first!

Supair advice to replace the carabiners and spreader bars every 5 years or after 500 hours of use.

The self-locking carabiners are NEVER to be used for any activities other than paragliding.

#### Repairs

In spite of using the highest quality products used for manufacturing, it is possible for your harness to deteriorate through general use. If showing any sign of wear and tear it should be sent for inspection and/or repairs at a professional certified facility.



SUP'AIR offers an extended warranty period reaching beyond the product standard protection plan against manufacturing defects. Contact us either by telephone or by E-mail sav@supair.com to receive a quotation.

#### Hardware & Parts

- Zicral 30 mm carabiners. (réf. : MAILCOMOUS30)
- Polypropyleneseat plate
- « ALT3 » Reserve parachute handle (POIALT3)

### **Materials**

Fabrics

Polyamide 210D RIPSTOP

Straps

Polyester 25mm and 28mm (1250 daN) Polyamide 15 mm, 20 mm, 25mm et 40mm

SUP'AIR manufactures its harnesses in Europe. Most of the components used are Made in Europe.

## Recycling

We have minimized our manufacturing footprint by carefully selecting environmentally friendly materials; most of our components are recyclable.

If you estimate that your MINIMAX BUMP has reached the end of it life-span, you can separate plastics from metals and dispose of them according to your community recycling rules. As for the fabric itself contact your local authorities to find out how to proceed to discard it.

# **BUMPAIR Shock Absorber**

The harness you have just purchased has a BUMPAIR type shock absorber.

This protection is intended to protect you against potential impacts. It complies with EU Regulations 2016/425 relating to personal protective equipment (PPE) and certified by expert following protocol SP-002 12/2016.

The shock absorber UE conformity of your harness is certified by the following laboratory: ALIENOR CERTIFICATION n ° 2754, Z.A. du Sanital, 21 Rue Albert Einstein, 86100 Chatellerault, FRANCE

The storage, transport and maintenance of the BUMPAIR is the same as it is for the harness. The inspection of the protector is the same as it would be for the harness.



Please note that no shock absorber can guarantee total protection against injury. The back protector does not prevent potential injuries to the spine and/or pelvis. In addition, only the parts of the body covered by the shock absorber are likely to benefit from adaquate protection against possible impacts.



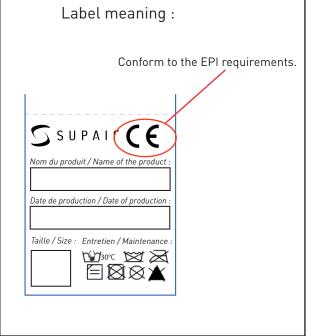
Please note that the performance of the equipment can be dangerously affected by any modification made or improper use of the shock absorber, and negatively affect the proper functionality of the protector which must be whole and properly installed. You must check that all is in order prior each flight:

-The correct installation of the BUMPAIR shock absorber.

-The BUMPAIR seams and overall condition of the fabrics - look for holes, tears, snags ....



The protection can have a five (5) year lifespan under normal use conditions. Warning! Following a major hard landing would justify the protector to be discarded.



If your BUMPAIR is damaged, have it inspected and repaired at a professional qualified facility or contact us at sav@supair.com

The test results and the EU declaration of conformity can be found at: www.supair.com

This page will help you to record all the life stages of your MINIMAX BUMP harness.

Serial number :

Purchase date	Care	Care
Owner's name	Resale	Resale
Name and stamp of the shop	Workshop's name/ Buyer's name	Workshop's name/ Buyer's name
	Care Resale Workshop's name/ Buyer's name	Care Resale Workshop's name/ Buyer's name

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