



Harness user's manual

# EVO Lite



SUP'AIR - VLD  
34 rue Adrastée  
Parc Altaïs  
74650 CHAVANOD  
FRANCE

45°54.024'N / 06°04.725'E



Thank you for choosing an EVO Lite ! 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 to customer feedback. 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 manual comprehensive, explicit and hopefully pleasant to read. We advise you to read it carefully !

On our website [www.supair.com](http://www.supair.com), you will find the latest updated 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 is at your disposal through [info@supair.com](mailto:info@supair.com)

We wish you many safe flights, enjoyable hours and happy landings.

The SUP'AIR team

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# Introduction



Welcome to the world of paragliding ! With the EVO Lite you are equipped with a complete product to help you broaden your horizons and let you discover new Cross Country thermal flights. With its great comfort level, a BUMPAIR 17 cm, and a reserve parachute pocket under the seat, you will be able to handle any kind of soaring condition anywhere.

After reading this manual, we suggest you check your harness by conducting a hang-test prior to your initial flight with it.

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



Advice.



Caution !

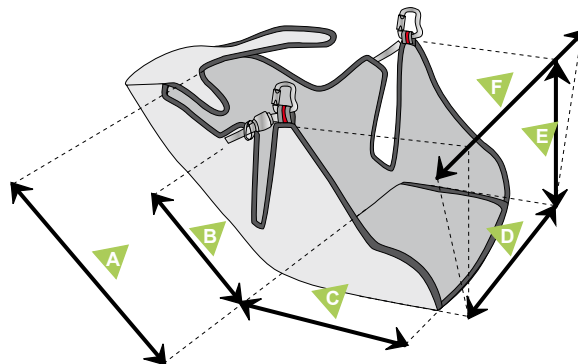


Danger !!

# Technical specifications

	S	M	L	XL
Pilot size	160-175 cm	165-185 cm	175-195 cm	195-205 cm
Pilot weight	50-75 kg	60-90 kg	70-100 kg	80-120 kg
Harness weight ( Bumpair 17cm, carbon fiber seat plate, foot-rest, risers, two self-locking carabiners )	3600 g	3750 g	3900 g	4050 g
Backrest height (cm)	56	65	70	75
Reclined seating height (cm)	37	38	39	40
Seat length (cm)	44	47	49	51
Seat width (cm)	33	35	37	39
Carabiners height (cm).	44	44	44	44
Carabiners distance between the two (cm)	39-50	39-50	39-50	39-50
Impact damping system : Airbag (Volume)	No			
Impact damping system : Bumpair (Thickness)	Yes			
Certification	EN 1651 - LTF			
Flight : tandem (Pilot- Passenger)	Possible			
Flight : acrobatic flying	No			
Take-off : Winching - towing	Yes			
Jettisoning carabiners compatibility	No			

A  
B  
C  
D  
E  
F



# Size choice

Choosing your harness size is important. You will find below a measurement chart to help with your selection. We recommend you to try out the harness in different sizes during a hang test at the nearest SUPAIR dealers location for proper fitting.

For a complete list of our retailers please click here : [www.supair.com](http://www.supair.com)

Preliminary test under hanging device.

Size Weight	1m45	1m50	1m55	1m60	1m65	1m70	1m75	1m80	1m85	1m90	1m95	2m	2m05		
50				S	S	S									
55				S	S	S									
60				S	S			M							
65				S			M	M							
70					M	M	M	M	L						
75					M	M	M	M	L	L					
80					M	M	M		L	L	L				
85						M			L	L	L				
90									L	L		XL	XL	XL	
95									L	L		XL	XL	XL	XL
100												XL	XL	XL	XL
105												XL	XL	XL	XL
110												XL	XL	XL	XL

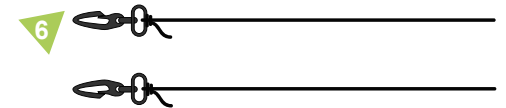
- XS
- XS/S
- S
- S/M
- M
- M/L
- L
- L/XL
- XL

# Nomenclature

1 EVO Lite harness

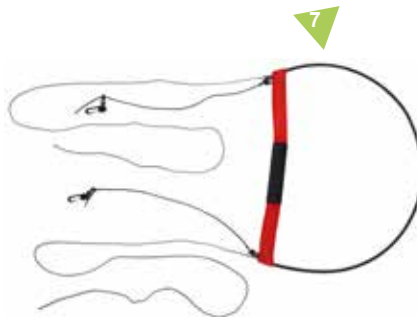
## Standard version.

- 2 BUMPAIR 17 XC  
Carbon fiber seat plate, see corresponding size on page 9
- 3 30 mm Self-locking Zicral
- 4 30 mm Self-locking Zicral
- 5 Reserve parachute handle ( ref : E2 )
- 6 elastic cord for speedbar return



## Options

- 7 Standard double stage speedbar
- 8 EVO CX3 Speedbag



# Harness overview

This illustration will help you understand the manual content.



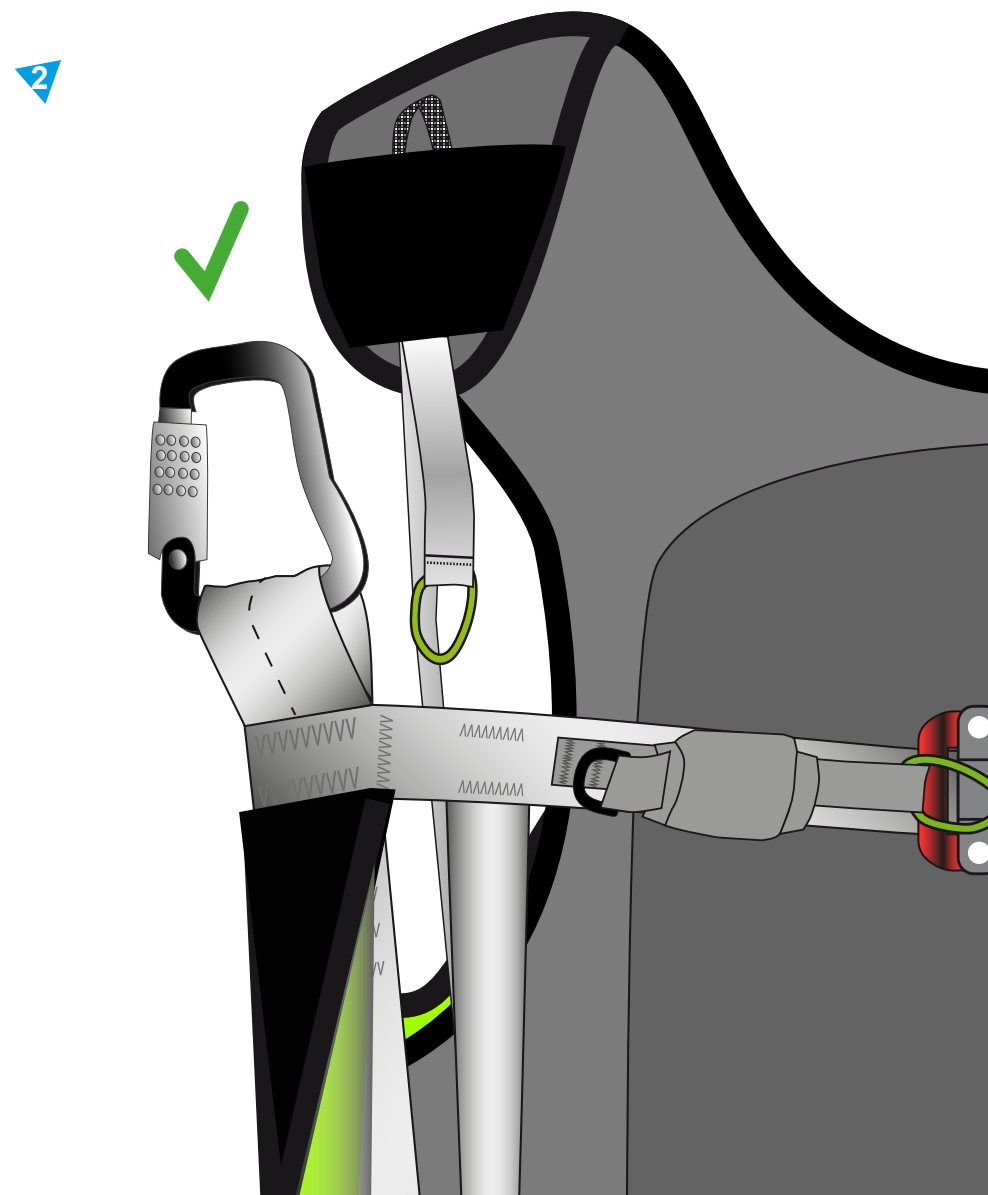
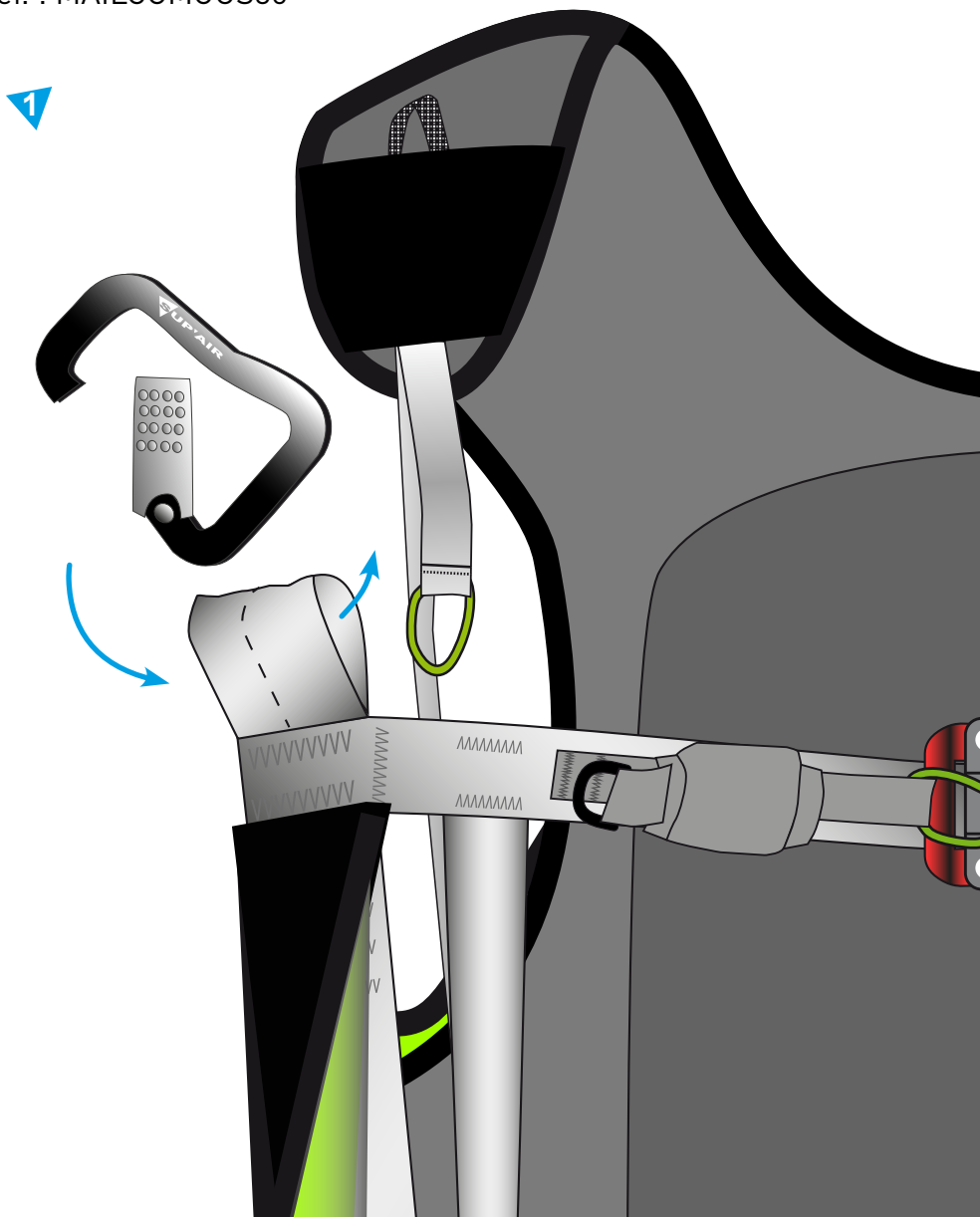
- 1 Attachment points.
- 2 Main buckles.
- 3 Chest strap adjustment.
- 4 Leg straps.
- 5 Backrest tilt adjustment.
- 6 Shoulder straps adjustments.
- 7 Seat plate angle adjustment.
- 8 Seat depth adjustment.
- 9 Foot-rest buckle.
- 10 Speed-bar guide.
- 11 Reserve parachute handle.
- 12 Dorsal pocket.
- 13 BUMPAIR placement.



### Compatible carabiners :

Zical 30 mm carabiners.  
Réf. : MAILCOMOUS30

## Carabiners assembly



# Installing the seat-plate.

The EVO Lite can be equipped with a wooden or a carbon fiber seat plate to loose overall harness weight.



Lift the rear end of the seat fabric, and insert the seat plate leading edge first.

Push the seat plate all the way to the end of the housing.

Once the seat plate is fully inserted in its housing, fold the hood over it.

## Corresponding seat plates for the various harness sizes.

	Size S	Size M	Size L	Size XL
Carbon fiber seat plate.	Carbon fiber seat plate. S 33x34 Ref. ( Reference ). : MPPL005	Carbon fiber seat plate. M 35x37 Ref. ( Reference ). : MPPL006	Carbon fiber seat plate. L 37x37 Ref. ( Reference ). : MPPL007	Carbon fiber seat plate. XL 97x37 Ref. ( Reference ). : MPPL008

## BUMPAIR assembly.



Inside the dorsal pocket :  
open the vertical zip.



Insert the BUMPAIR 17XC  
inside the slot.



Dorsal pocket.

BUMPAIR 17 XC.

BUMPAIR housing.

Push the BUMPAIR between the exterior of the container and the BUMPAIR housing.

Once the BUMPAIR is fully inserted inside its housing, push behind the dorsal pocket.

Once the BUMPAIR is fully inserted inside its housing, close the vertical zipper.

# Installing the speed-bar system.

The EVO Lite is pre-equipped to use a speed-bar as most of our harness models are. Within the SUP'AIR gear lineup, the standard speed-bar is the most adaptable for being the lightest and self-retractable.



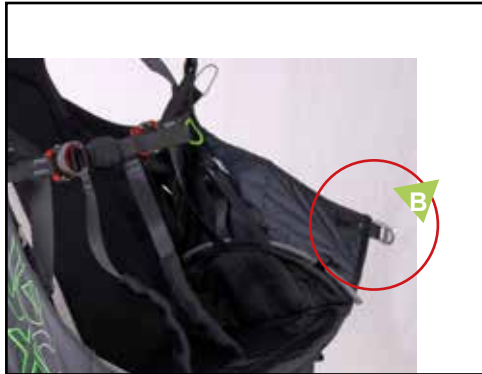
- 1** Push the accelerator cord through the guiding tube. **D**
- 2** Push the speed-bar line through the pulley.
- 3** Push the accelerator cord through the lateral skirt slot. **E**
- 4** Attach the end of the speed-bar lines to the crimped hooks which is to be connected to the riser's crimped hooks. Adjust the lines length and securely knot it.
- 5** Self-retracting speed-system: push the elastic cords through the (D) ring to connect them to the white loop stitched on the inner sides of the harness. **F**
- 6** If the foot rest is not used, the lateral skirt can be folded over and around the guiding tube and close by pressing the button.



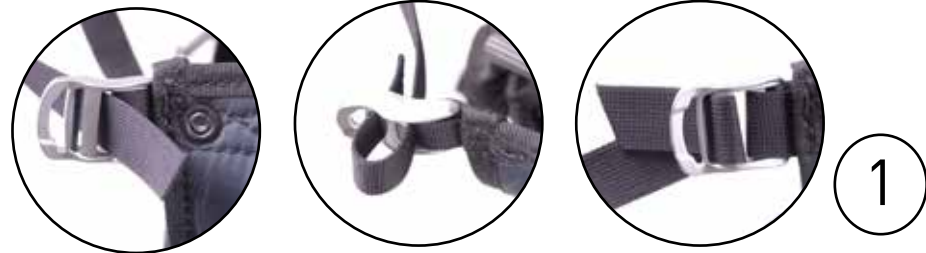
# Foot-rest installation (Option).



The EVO Lite is pre-equipped to accept a retractable foot-rest 20mm (A).



Push the foot-rest strap through buckle (B) located at the front of the harness side skirt.



Push the elastic under the guide (C).

2



Inner view.

Outer view.

3



Adjust the foot-rest length during a hang-test, and stow away the straps excess in the elasticated holder.

4

# Rescue parachute setup assembly.



Thank you for carefully reading the following! We advise you to have the initial rescue parachute installation done by someone knowledgeable with the process.

## Connecting the handle to the rescue parachute's deployment bag.



1. Place the handle inside the middle webbing loop and make a lark's head knot with the handle.
2. Fasten tightly the lark's head knot, and verify the solidity of the link.

The handle must be connected to the central loop, except for large reserve parachutes ( use side loop ). Must be checked at the end of the installation procedure by gently pulling on the handle, and make certain to disengage both safety pins held in place

## Setting up the reserve parachute risers guiding sleeves.

Completely open the reserve parachute risers guiding sleeve zipper.



## Connecting the risers to the harness.

Make a lark's head knot configuration with each Dyneema riser on the harness parachute connections.



## Connecting the reserve parachute to the Dyneema risers

Connecting the reserve parachute with the parachute risers using the 7mm carabiners ( Mailon Rapide® ). Secure the bridles in place, using the toric elasticated rings.



Connected risers to the harness ( lark's head knot connection ).



Tuck the risers away in the riser sleeve.



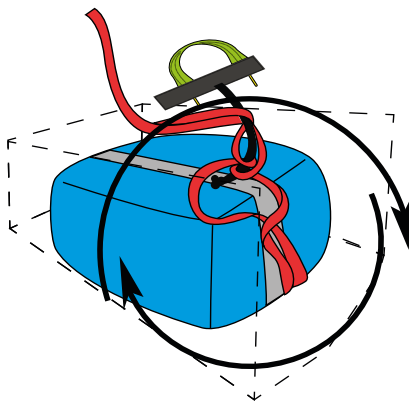
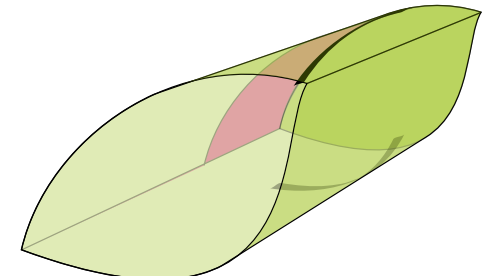
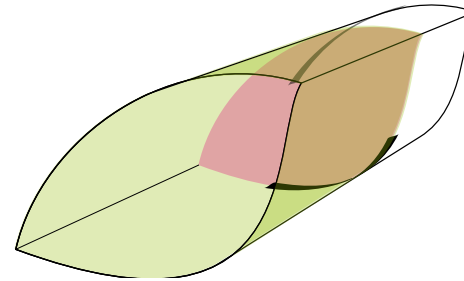
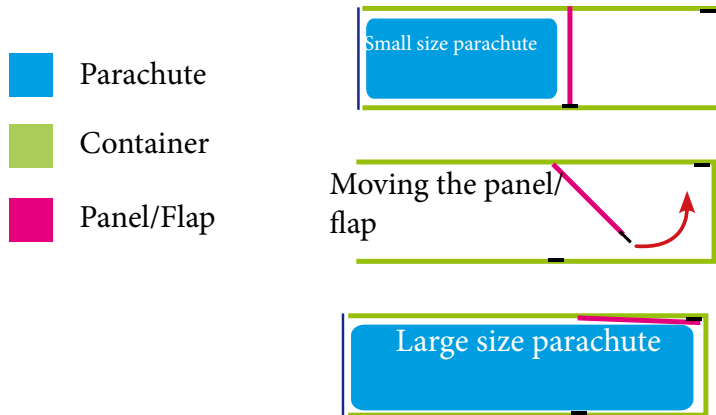
## Adjusting the reserve parachute pocket :

A panel/flap ( red on the illustration ), is located on the inside of the reserve parachute container ( green on the illustration ), to adapt its volume to your reserve parachute size.

The Velcro® ( black on the illustration ) enables the panel/flap to be secured in place.

>>Sliced view

>> 3D view



If the emergency parachute does not have a snug fit inside the rescue pocket, it could potentially rotate on itself while using the harness.

The risers then roll up around the rescue parachute pod handle and prevent a deployment.



To close the protective riser sleeve...



... lower the zipper tab down to the reserve parachute pocket level...



Once the tab can not move further and aligned with the reserve parachute pocket ; bring it up to close the zipper.



Place the POD in the pocket. Reserve handle on the seat plate side, lines and risers facing outward.

With a small cord : hook the loop - #1 marker.



Push the cord and the loop through grommet #2.





Push the cord with the loop through grommet #3, and push the handle's pin through the loop. Then tuck away the pin with the handle's end behind the neoprene flap #3.



With a small cord : hook the loop #4 marker.



Push the cord and the loop through grommet #5.



Push the cord and the loop through grommet #6.



Push the cord with the loop through grommet #7, and push the handle's pin through the loop.



Then tuck away the pin with the handle's end behind the neoprene flap #7.



The tab is located at the end of the zipper on the bridle side ( inside the fabric sleeve ).

Top view



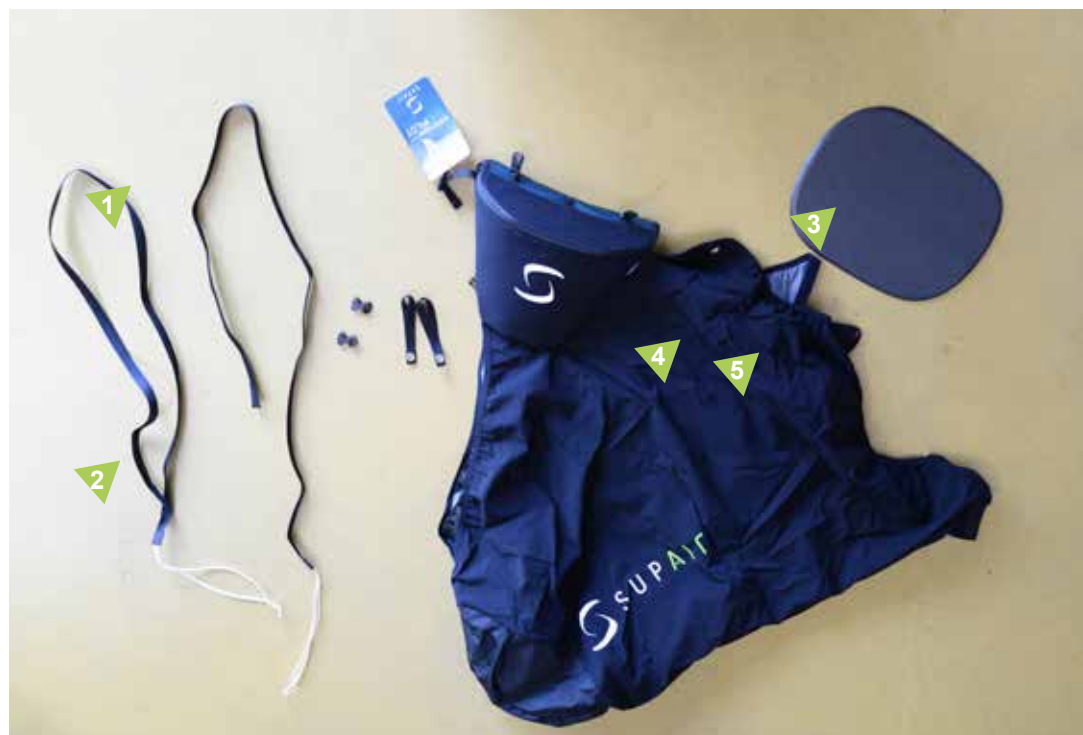
Zip up the reserve parachute riser sleeve.

Reserve parachute riser protective sleeves.

Harness with reserve parachute overview.

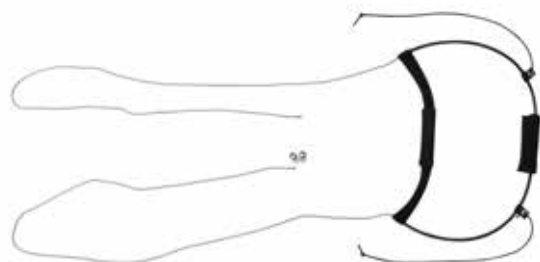
Upon setup completion, conduct an extraction sequence during a hang-test to verify that all works properly before repeating the installation procedure.

- 1 SPEEDBAG EVO LITE
- 2 Plateau SPEEDBAG.  
MPT010 (S, M) / MPTI024 (L, XL)
- 3 Sangles de réglage
- 4 Sangles de maintien
- 5 Boucle rapide 15mm femelle

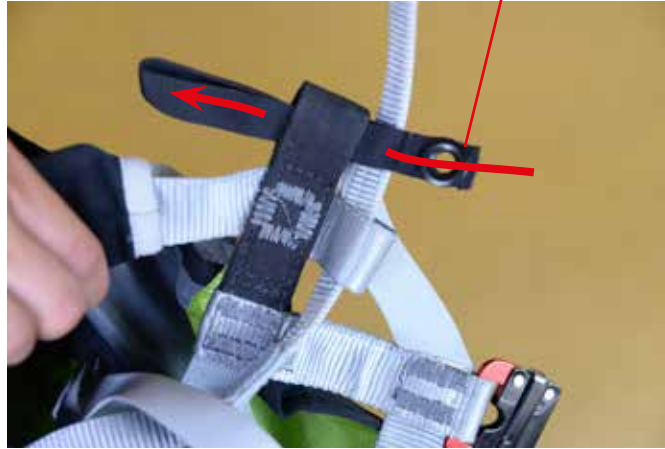


## Option

Accélérateur double barreaux pour SPEEDBAG



**Installation sangles de maintien N° 4 de chaque côté.**  
Install one tape loop N°4 on each side.



**Vue depuis l'extérieur. Installation sangle terminée**  
Outside view. Installation finished.



**Vue depuis l'intérieur. Installation sangle terminée**  
Inside view. Installation finished.

## Installation du plateau Speedbag.

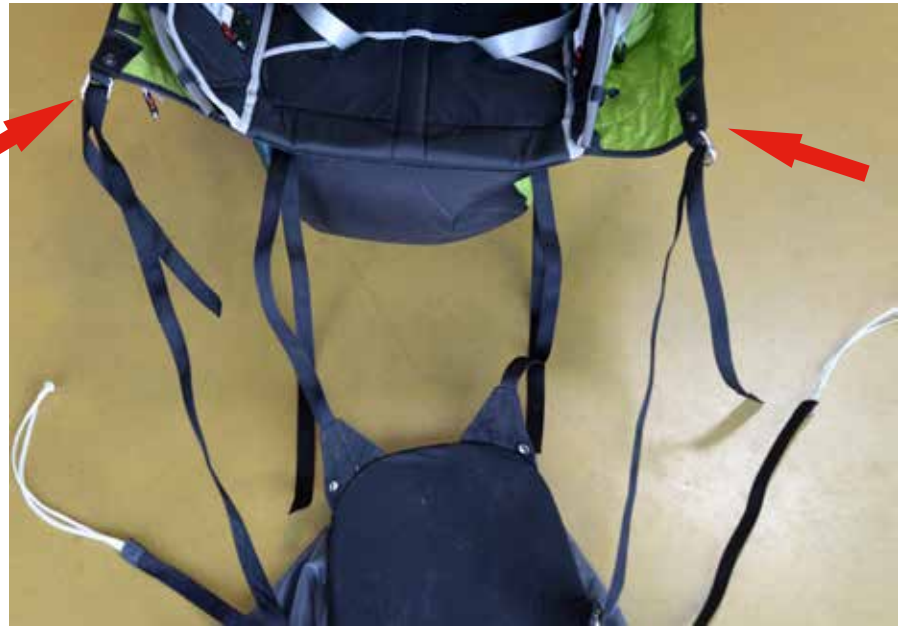
Speedbag plate installation



1



2



3



4



5



6



7





8 Coté gauche : Left side



9 Coté droit : righth side



**Installation dans la sellette**  
Harness installation



Le réglage de la sellette avant le décollage est extrêmement important.

Setting your position inside the harness before taking-off is extremely important.



# Harness adjustments.



All those adjustments must be conducted while seating in a hang-test device, and before the initial flight.

## Shoulder straps adjustments.

Tighten the shoulder straps using the small looped cord by pulling forward (or downward). **1**

Loosen by pulling the checkered strap reward. **2**

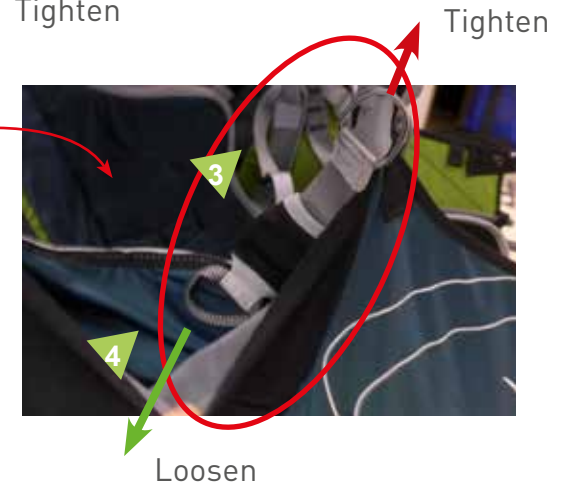
Resting precisely on the shoulder straps improves comfort. You must find the perfect equilibrium between the side/lateral trim straps adjustments and the shoulder straps.

In a reclined seating position, the shoulder straps also participate to the overall comfort by supporting the upper torso/shoulder area.




## Backrest angle adjustment.

Change the backrest angle by pulling the loop.




## Chest strap adjustment.

 This adjustment is important for acting on the ABS and the harness overall stability. The tighter the more stable. The opposite is true while still enabling weight-shift steering.

To tighten the chest strap:

Place your left hand in front of the risers, and grab the right carabiner.

With the right hand shorten the distance by, grabbing the chest strap finger-loop and pull it to tighten the chest strap.  1

To loosen the chest strap:

Place your left hand in front of and pass the risers to grab the right carabiner.

Using the left hand, shorten the distance between the risers and pull the finger-loop in the opposite direction to loosen the chest strap.  2



## Seat plate adjustment.

This adjustment enables leg support variations toward to front of the seating area. Comfort and seating posture can be improved for pilots with long legs.

To tighten and increase leg support to the front of the seat plate : bringing the legs upward will reduce tension on the adjustment buckles, and decrease the effort required to pull the end straps upward.

To loosen the tension : raising the legs upward will reduce tension on the adjustment buckles, and decrease the effort required to unlock them with an upward tilt.



## Seat depth adjustment.

This adjustment enables the seat depth to be adjusted. It can be an asset when flying with feet on the foot-rest in a more reclined posture. On the other hand, it is not necessary to reduce the seat depth for an adopted upright seating flying posture.

To reduce the seat depth : raise your hips while pressing on the foot-rest ( this action reduces the tension on the buckles), and the pull exerted on the adjustment straps ends.

To loosen the support : tilt the adjustment buckles and relax the adjustment straps.



## Inflight behavior.

The harness geometry creates a very good symbiosis ou correlation between the wing and seat stability (especially when tightening the chest strap).

The EVO Lite is a stable and dampened harness.

The backrest is stiffened thus enabling a better pressure distribution on the entire dorsal area during for long comfortable flights.

The EVO Lite structural design brings an excellent correlation between the wing and the harness (noticeably when tightening the chest strap).



## Pre-Flight control.



- Inspect the harness and the carabiners for possible wear and tear.
- 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.



# 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 AIRBAG's integrity ( especially after a strong impact ), in other words, no holes, tears or rips.



The threads and fabric used to manufacture the ALTIRANDO3 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!



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.



SUPAIR 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](mailto:sav@supair.com) to receive a quotation.

## Hardware & Parts

- Zicral 30 mm carabiners. (réf. : MAILCOMOUS30)
- Carbon seat plate
- « E2 » Reserve parachute handle (POIE2)

## Materials

Fabrics

Polyamide 210D RIPSTOP

Straps

Polyester 25mm and 28mm (1250 daN)

Polyamide 15 mm, 20 mm, 25mm et 40mm

SUPAIR 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 ALTIRANDO3 has reached the end of its 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.

## Warranty

SUP'AIR takes the greatest care in its products design and manufacturing and hence offers a five (5) year limited warranty from the date of purchase against manufacturing defects or flaws occurring during normal use. Any damage or degradation resulting from incorrect or abusive use, abnormal exposure to aggressive factors, including, but not limited to; high temperature, intense sun exposure, high humidity, excessive abrasion, etc, will invalidate this warranty.

The safeguards incorporated in the SUP'AIR harnesses are guaranteed for use in temperatures averaging (-10 ° C to 35 ° C). The lifespan of foam protectors is 5 years or limited to three substantial impacts. If an air-bag protection is used instead, check for damage.

## Disclaimer



Paragliding is an activity requiring specific skills and sound judgement. Learn how to fly within the environment of a certified paragliding school. Carry an insurance policy with you in addition to you pilot certification. Always mind and gauge your personal skills against the weather conditions of the day. Better be safe than sorry ! SUP'AIR can not be held responsible for your paragliding decisions or activities.



**This SUP'AIR product has been designed exclusively for paragliding. Any other activity such as skydiving or BASE jumping is absolutely forbidden.**



It is essential for you to wear a suitable head protection (certified paragliding helmet), adequate footwear and the right clothing for the activity. Moreover carrying a reserve parachute connected to your harness in flight is highly recommend.

## Pilot's gear

### CE certification : About the paragliding harnesses protection

We want to inform you and let you know that no harness protection can guarantee a complete protection against injury. In particular, the back protector which does not prevent potential injuries to the spine or pelvis.

Moreover, only parts of the body covered by the air bag may benefit from protection against potential impacts.



Warning, any modification or misuse of the protection can dangerously alter its performance and compromise the integrity of the safety device.

Protection is ensured only when the protective elements are present and properly installed. Thus, when the protection is removable, check that it is correctly positioned.

Your harness protection CE conformity labeling is certified by the following laboratory :

CRITT Sport Loisirs **nr. 0501**, Z.A. du Sanital, 21 Rue Albert Einstein, 86100 Châtellerault – FRANCE

This page will help you to record all the life stages of your EVO Lite harness.

Serial number :

Purchase date	
Owner's name	
Shop's name and stamp.	

<input type="checkbox"/> Care <input type="checkbox"/> Resale	
Date	
Workshop's name/ Buyer's name	

Care Resale	
Date	
Workshop's name/ Buyer's name	

Care Resale	
Date	
Workshop's name/ Buyer's name	

Care Resale	
Date	
Workshop's name/ Buyer's name	



**SUPAIR-VLD**  
Parc Altaïs  
34 rue Adrastée  
74650 Chavanod, Annecy  
FRANCE  
info@supair.com  
+33(0)4 50 45 75 29

**45°54.024'N / 06°04.725'E**



  
**SUPAIR**  
LIFE IS IN THE AIR