SUP'AIR

User's manual
Harness

PIX AIR

English

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

45°54.024'N / 06°04.725'E

www.supair.com

Thank you for choosing the PIXAIR We are glad to be able to share our common paragliding passion with you.

SUP'AIR has been designing, producing and selling free flying equipment since 1984. By choosing a SUP'AIR product you benefit from almost thirty years of expertise, innovation and listening. Our mission statement: research and develop to constantly enhance our product line.

We hope you will find this user's manual comprehensive, explicit and hopefully enjoyable as well. We advise you to read it carefully.

You will find the lastest udated information about this product on our website www.supair.com. If you have further inquiries, feel free to ask one of our retailers for answers. And naturally, the entire SUP'AIR team is at your disposal at info@supair.com

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

Team SUP'AIR

List of contents.

Introduction

Welcome to the paragliding world according to SUPAIR; a world of shared passion.
The PIXAIR was designed for pilots coming out of school or in progression. It brings comfort and peace of mind to pilots experiencing with their first XC (Cross-Country) flights to discover new horizons !
It was designed with schooling and fun in mind to provide full comfort and a worry free learning curve.

The harness PIXAIR harness was certified EN 1651 : 1999 and LTF 91/09
Indicating that it meets European and German safety requirements.

After reading this manual we suggest you to check your harness during a hang-test to adjust it before your first flight.

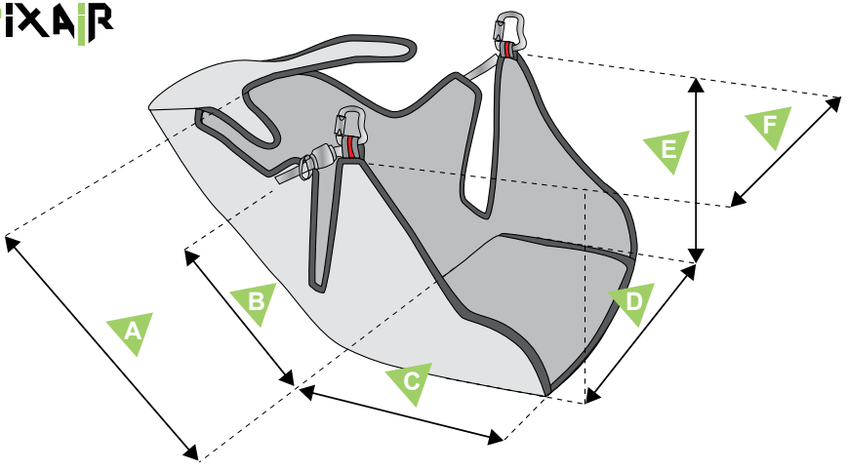
N.B : Three important icons will help you when reading this manual


Advice


Caution !


Danger !!

Technical specifications



- **A** Backrest height.
- **B** Backrest tilt adjustments.
- **C** Seat depth.
- **D** Seat length
- **E** Hooking point height.
- **F** Length between the hooking points.

Characteristics / Harness size	S	M	L
Pilot size (cm)	155 -175	170 -185	180 -195
Pilot weight (mini - maxi)	60 - 80 kg	65 - 85 kg	70 - 100 kg
Harness weight (+carabiners+speedbar)	3 300 g	3 620 g	3 720 g
Designed for	No		
Backrest height (cm) A	57	64	70
Backrest tilt adjustments (cm) B	35	37	38
Seat depth (cm) C	46	47	48
Seat width(cm) D	35	37	40
Hooking point height. (cm) E	44	45	46
Length between the hooking points. (cm) F	40-53	40-53	40-53
Impact damping system: Airbag	Yes		
Impact damping system: Bumpair	No		
Certification	Yes : EN 1651 : 1999 and LTF 91/09		
Tandem (Pilot or Passenger)	Passenger only		
Acrobatic flying	Yes		
Towing	Yes		
Reserve parachute pocket volume (Liters).	7.5 L		

Size choice.

Choosing your harness' size is important. You will find here below a height/weight table to help you with your size choice. With its hammock architecture and reclined flying posture, we advise you to try out the harness during a hang-test first at one of our retailers location to choose the correct size.

For a complete list of our retailers list click here : www.supair.com

Preliminary hang-test.

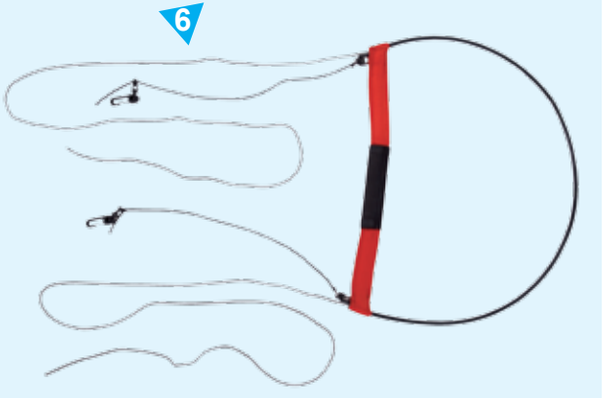
Size Weight	1m55	1m60	1m65	1m70	1m75	1m80	1m85	1m90	1m95
50									
55	S	S	S	S					
60	S	S	S	S					
65	S	S	S	S					
70	S	S	S		M	M			
75		S		M	M	M		L	
80			M	M	M		L	L	
85						L	L	L	L
90					L	L	L	L	L
95						L	L	L	L
100							L	L	L

Nomenclature

1. Harness
2. « E2 » reserve parachute handle. (réf. : POIE2)
3. Zicral 30 mm carabiners. (réf. : MAILCOMOUS30)
4. wood seat plate. (réf. : MPPL017 à MPPL019 selon la taille)

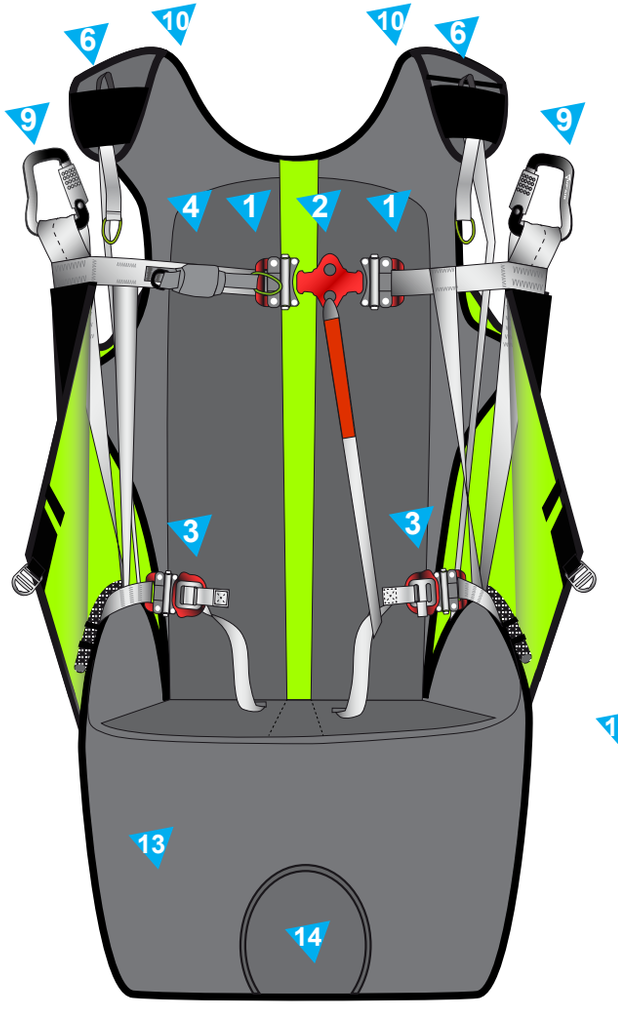
Options

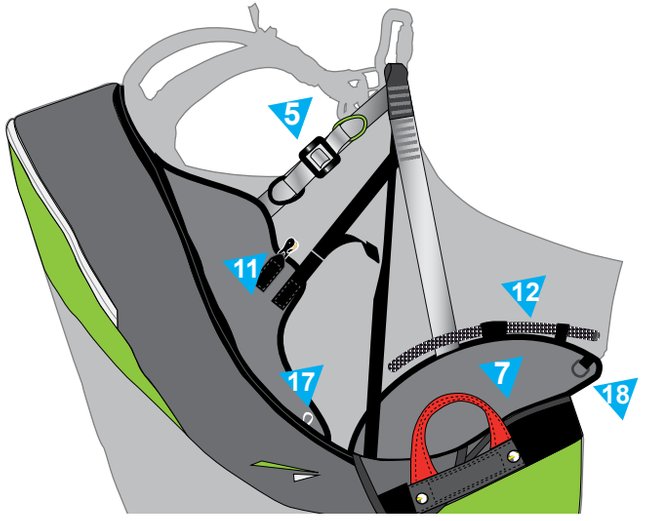
5. Double stage accelerator/speed-bar (réf. : CALEPIEDRETRACT20)
6. Standard double stage accelerator/speed-bar (réf. : ACCELSOUPLE)

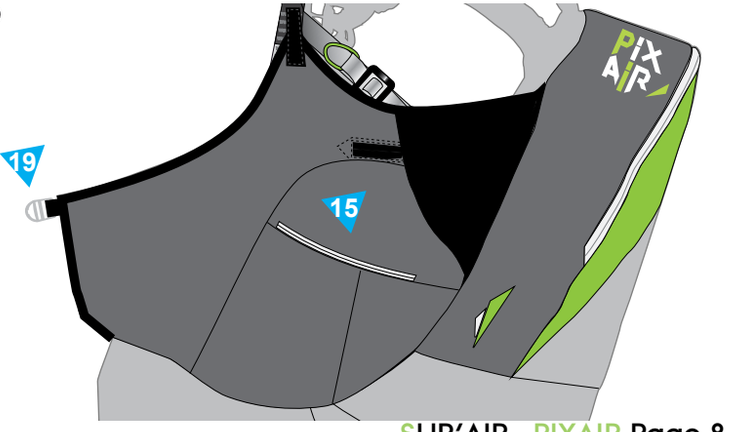


Harness overview

1. Chest strap with automatic buckles.
2. Safe-T-bar.
3. Leg strap buckle.
4. Chest strap adjustment.
5. Backrest tilt adjustment.
6. Shoulder straps adjustments.
7. Reserve parachute handle
8. Reserve parachute pocket.
9. Reserve parachute paragliding main hooking points.
10. Reserve parachute hooking points.
11. Speed-bar/accelerator pulleys.
12. Speed-bar/accelerator tube.
13. AIRBAG
14. AIRBAG air intake.
15. Radio and Small storage pocket.
16. Back storage pocket.
17. Accelerator/speed-bar recoiling cord
18. Recoil accelerator/speed-bar "D" buckle.
19. Foot-rest buckle







Accessories assembly

>> 1. Wooden seat plate

Seat plate description. :

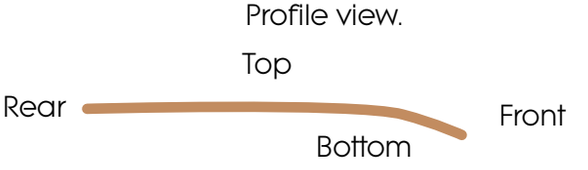
Wooden seat plate.

Taille S Ref. : MPPL017
Taille M Ref. : MPPL018
Taille L Ref. : MPPL019

Installing the seat plate. :

1. Face the harness. Grab the upper layer end of the seating area and pull it toward you. Reach inside the seat-plate pocket and pull the leg straps rearward to give enough room to insert and sandwich the seat plate between them.

2. Sandwich the seat-plate between the leg straps ad push it, leading edge first, all the way inside the seat-plate pocket.
Bring the leg straps to their original position by pulling them..



Accessories assembly

>> 2. Speed-bar system

Compatible accelerator/speed-bar :

STANDARD double stage speed-bar/accelerator.

Réf. : ACCELSOUPLE

Speedbar assembly. :

Regarding either side of the harness:

1. Push the accelerator/speed-bar line through the tube located at the front side of the harness 12

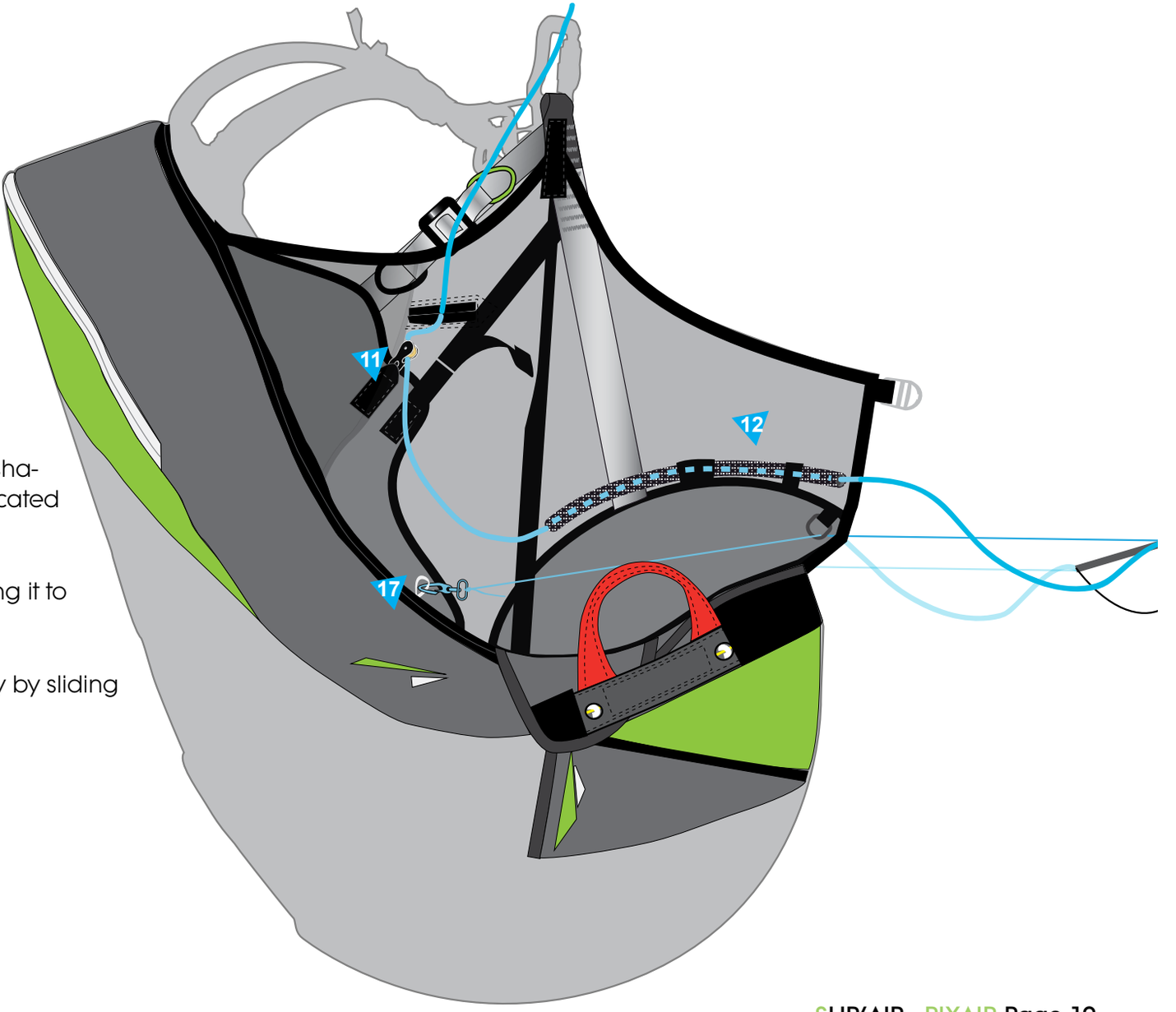
2. Push the accelerator/speed-bar line through the pulley connected to the lateral panel. 11

3. Pull the line through the side skirt opening slit.

4. Push the elasticated cord through the plastic "D" shaped buckle and connect the plastic clip to the elasticated cord. 17

5. Finally, attach a hook to the cord before connecting it to the glider's speed-bar/accelerator.

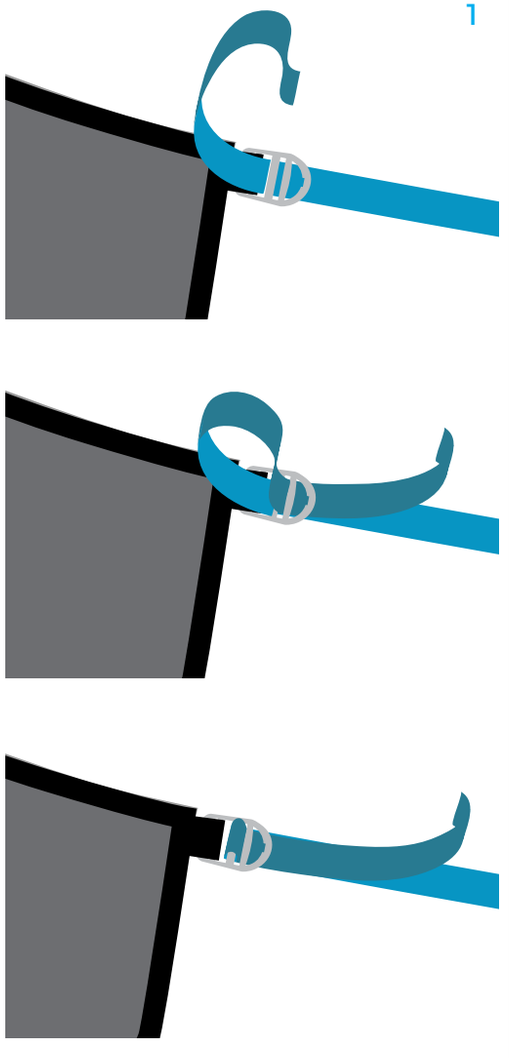
6. Simulate the speed-bar/accelerator's functionality by sliding the cord back and forth.



Accessories assembly.

>> 3. Foot-rest (option)

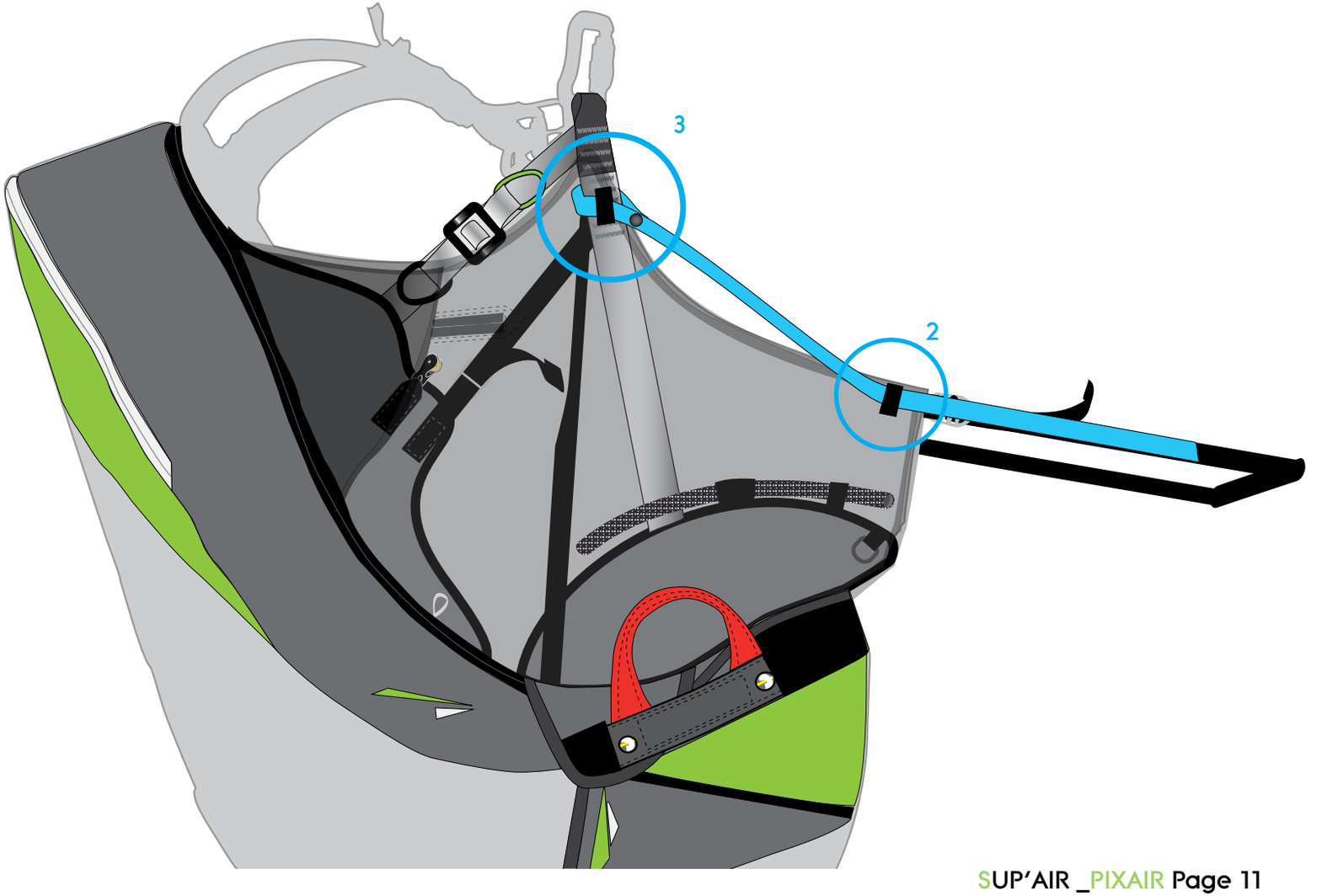
1. Push the foot-rest strap through buckle located at the front of the harness's side skirt.



2. Push the elastic under the guide

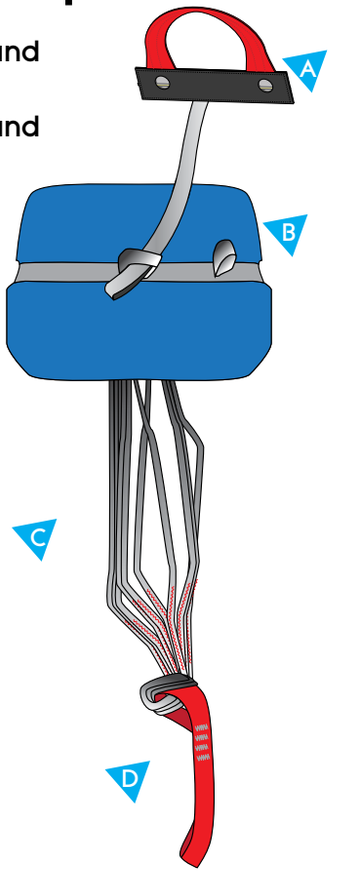
3. Wrap and connect the elastic around the main strap while pushing it through buckle.

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



Installing the reserve parachute.

Thank you for reading the following carefully ! We recommend for the initial rescue parachute assembly and installation to be made by a qualified professional.
Reserve parachute folding and installation inside the harness must conform to the specific guidelines found in this manual.



A Reserve parachute handle (Ref. POIE2).

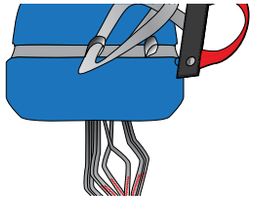
B Reserve parachute inside its deployment bag and folded according the manufacturer's specifications.

C Parachute rigging lines

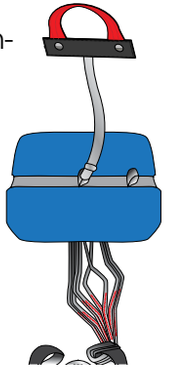
D Single reserve parachute handle.

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

1. Fasten the handle strap to the POD's middle loop by making a loop to loop (Lark's head) knot.



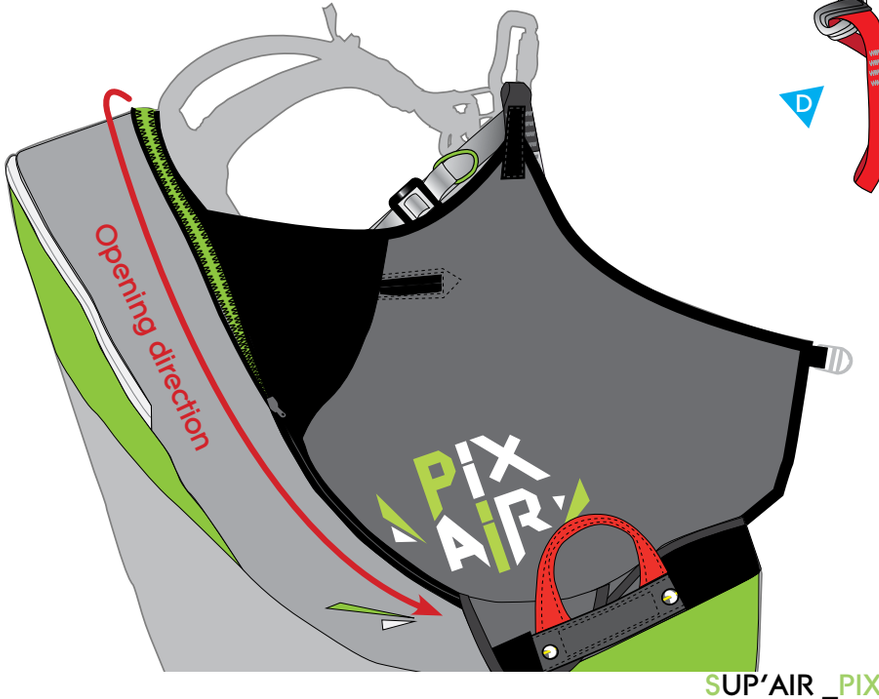
2. Tighten the handle/POD connection securely.



Reserve parachute/harness connection.

>> Access to the reserve parachute connection points.

First, open the riser guiding sleeve all the way from top to bottom to access the reserve parachute connection loops.
Once the riser guiding sleeve is fully opened, the zipper tab must be located on the same side of the reserve parachute pocket.

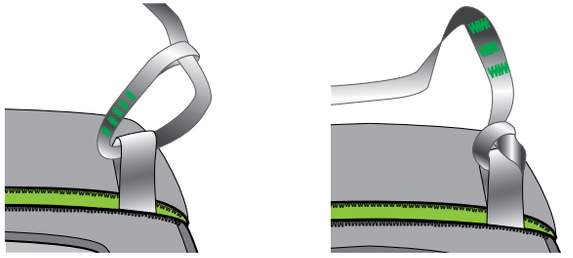


Installing the reserve parachute

Reserve parachute/harness connection.

>> Loop to loop connection (Lark's knot) of the PIXAIR harness to the reserve parachute individual risers.

1. - Attach each riser to the shoulder attachment points by making a Lark's knot (loop to loop connection). Use the largest bridle loop ends.



2. - Assemble everything correctly.
- Make sure for the risers not to be longer than one another.
- Tighten each connection securely.

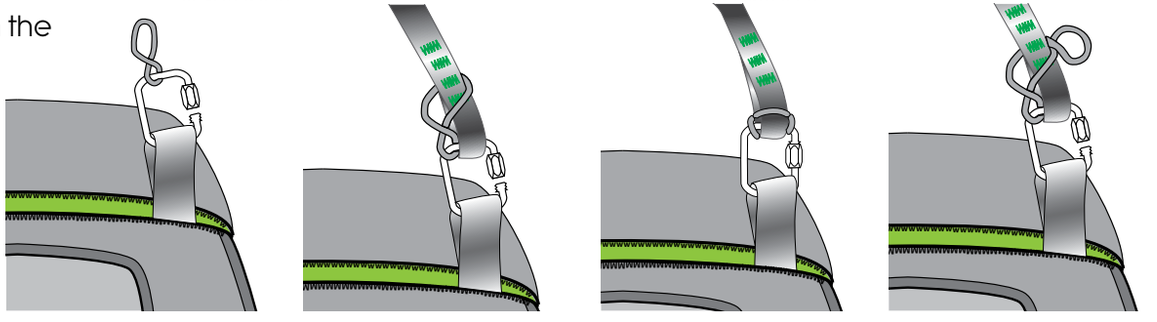
>> Loop to loop connection (Lark's knot) of the PIXAIR harness using square steel links 6mm (Maillon Rapide®) for a separate or "Y" riser setup.

1. - Two maillon Rapide® 6mm and two toric flexible rings are needed.

2. - Open the 7mm square Maillon Rapide®.
- Connect the bridle's loop to the Maillon Rapide®.
- Push the maillon through the plastic ring
- Twist

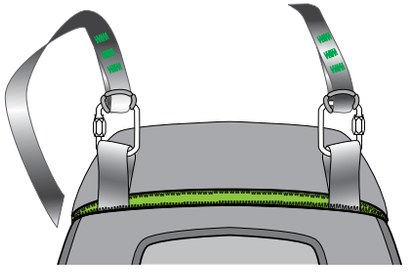
3. - Push the end riser through the toric ring.
- Push the maillon through the risers buckles.

4. - Give a second twist to the plastic ring.
- Push the buckle through the maillon.



5. - Tidy up the assembly.- Be certain for the riser end loops to be securely fastened.
- Close the Maillon Rapide® tightly by hand.
- Tighten using pliers and making a ¼ turn.

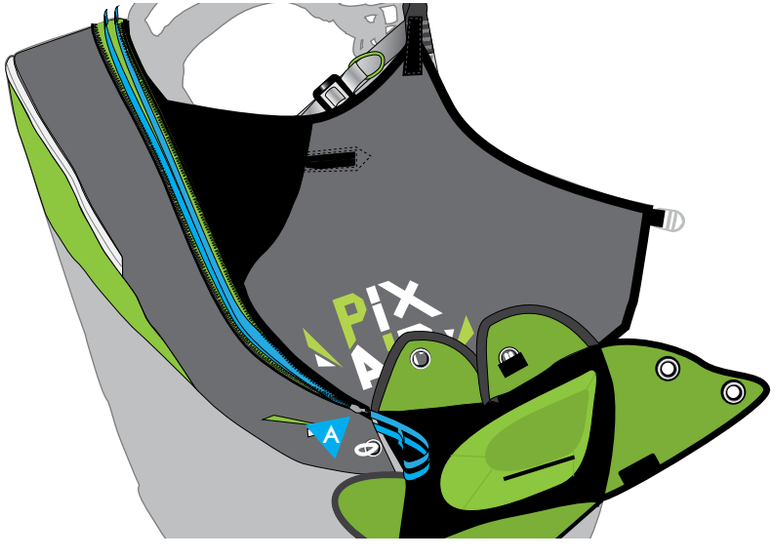
6. Repeat the sequence on the other side of the harness.



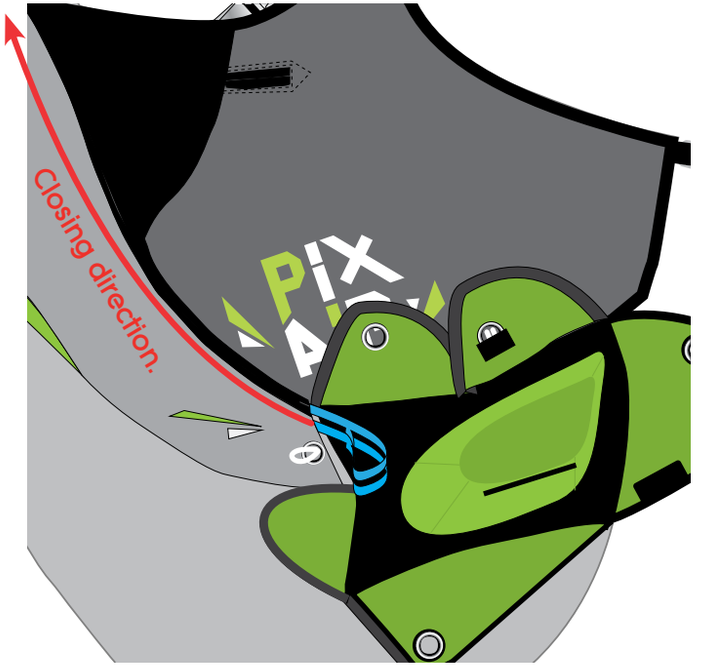
Installing the reserve parachute

Reserve parachute/harness connection.

>> Position the risers



- Place the risers inside their guiding/ protective sleeve connected alongside the harness.
- Push them through and under the zipper tab. A
- Bring them out through the reserve parachute container.
- Close the Zip to the tab above the left shoulder.



>> Reserve parachute/risers.

One (1) square 7mm Maillon Rapide® will be needed + two (2 flexible toric rings.

1. - Open the 7mm square Maillon Rapide®.
- Connect the reserve parachute single riser loop.
- Push the maillon through the plastic ring
- Twist

2. - Push the end riser through the toric ring.
- Push the maillon through the risers buckles.

3. - Give a second twist to the plastic ring.
- Push the buckle through the maillon.

4. - If you use separate/independente risers: Repeat steps 1 through 3 with the second riser.
- If you use separate risers

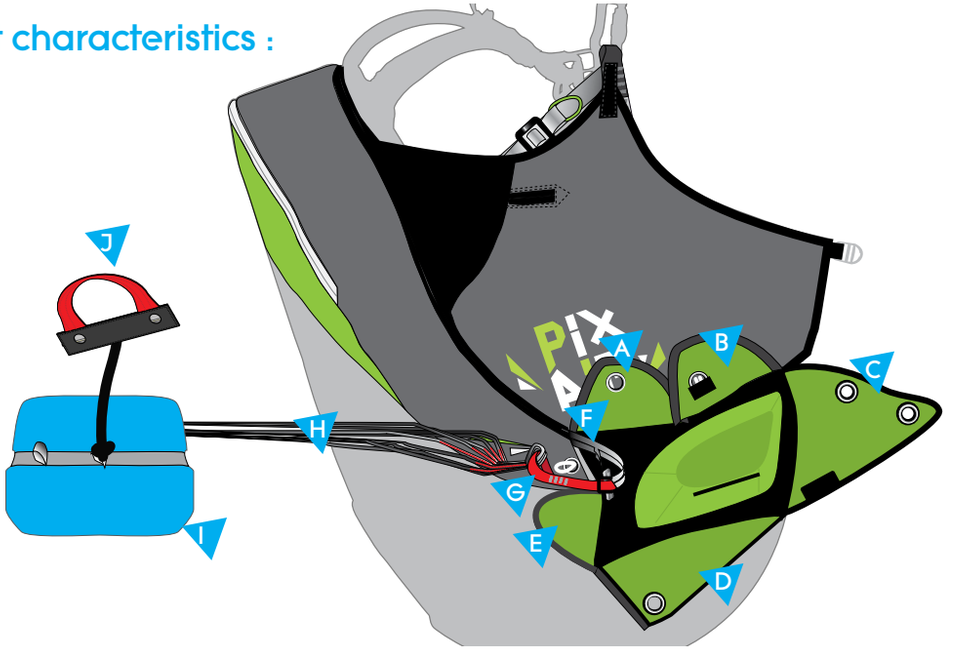
5. - Tidy up the assembly.
- Be certain for the riser end loops to be securely fastened.
- Close the Maillon Rapide® tightly by hand.
- Tighten using pliers and making a ¼ turn.

Installing the reserve parachute.

Rescue parachute pocket characteristics :

-- Five (5) flap dorsal pocket.
- Locking via cables
-- Handle «E2» (Ref.: POIE2).
-- 3 to 8,5 liters.

The rescue pocket is adjustable and adapted to the SUP'AIR parachutes, or other Apex type models (rounded crown only) no Rogallo parachutes.



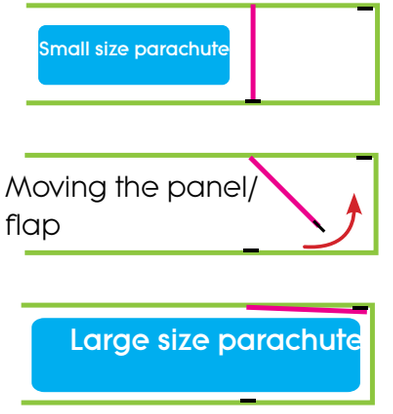
- A Left upper flap.
- B Right upper flap.
- C Right flap.
- D Lower flap.
- E Left flap.
- F Reserve parachute risers.
- G Reserve parachute single riser.
- H Reserve parachute surplus lines (about 1 meter).
- I Reserve parachute folded in its POD.
- J Reserve parachute handle.

Adjusting the reserve parachute pocket :

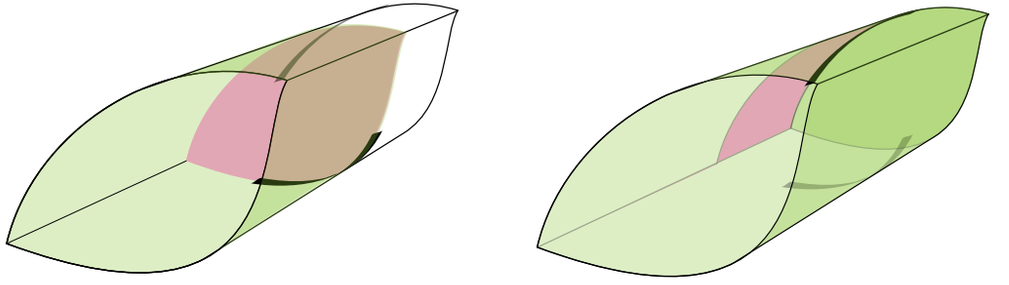
A panel/flap (red on the illustration), is located on the inside of the reserve parachute container (green on the illustration), to adapt its volume to your reserve parachute size.
The Velcro® (black on the illustration) enables the panel/flap to be secured in place.

>>Sliced view

Parachute
Container
Panel/Flap



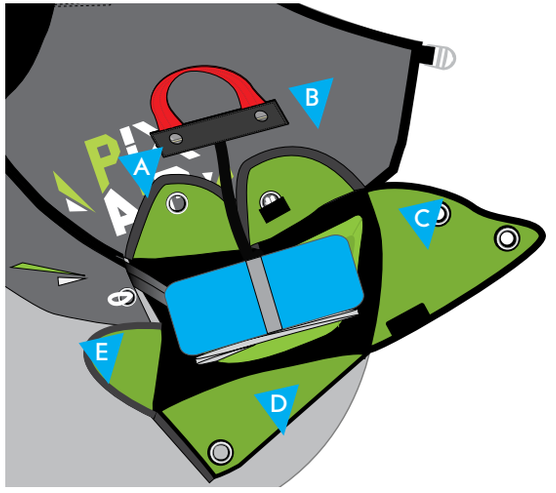
>> 3D view



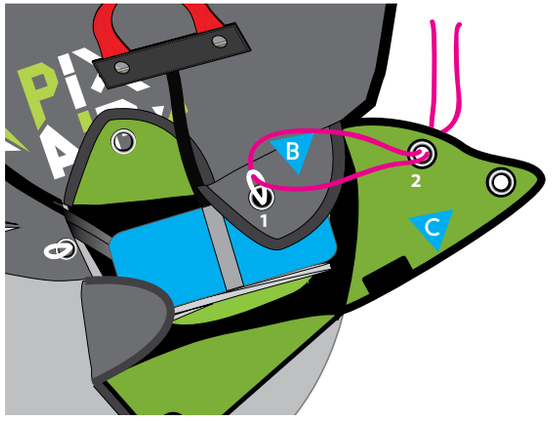
Installing the reserve parachute.

Installing the reserve parachute in its container.

1. - Place the reserve parachute inside the container, with the handle positioned upward, and parachute risers downward.

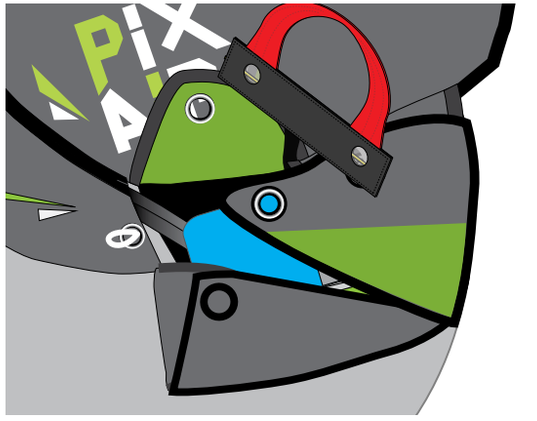


2. **- Take a small piece of line to help with the installation procedure.**
- Push it through loop #1 (B flap).
- Using the piece of line pull loop #1 through grommet #2 – flap ©...

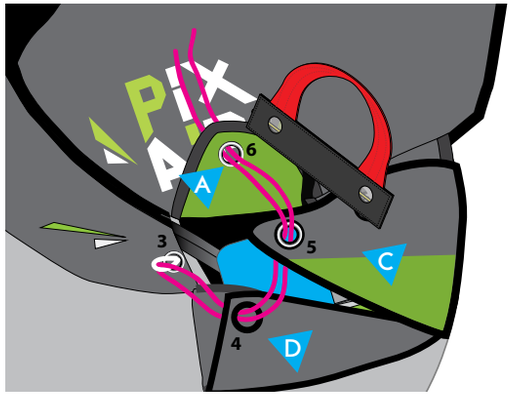


3. - Secure the installation by pushing the right side of the yellow cable through the loop cord #1

Carefully remove the line.

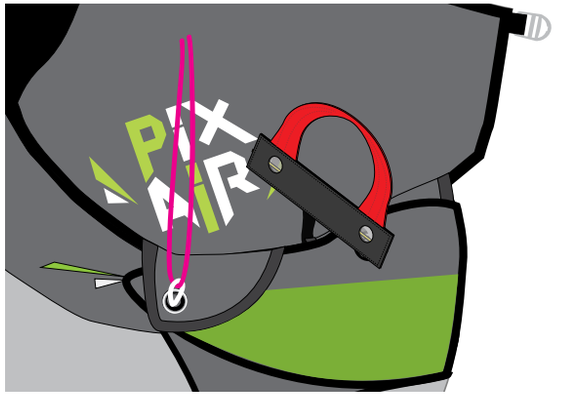


4. - Using the piece of line pull loop #3 through grommet #4 – flap (D)...
- ... then inside grommet #5 – flap C
- then inside grommet #6 – flap (A)

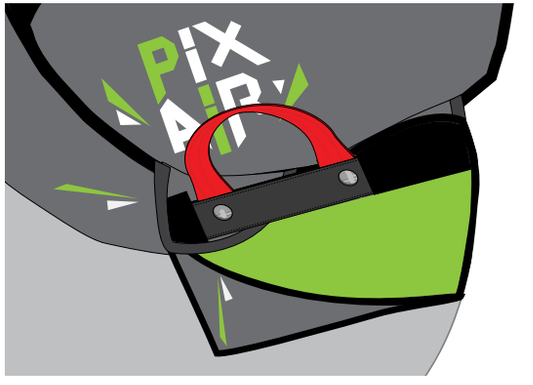


5. - Secure the installation by pushing the left side of the yellow cable through the loop cord #3

Carefully remove the line.



5. - Fasten the reserve parachute handle to the Velcro®
- Push the two outer ends of the reserve parachute handle inside their respective housings located on either side of the handle on the harness.



Check the completed installation during a hang-test.

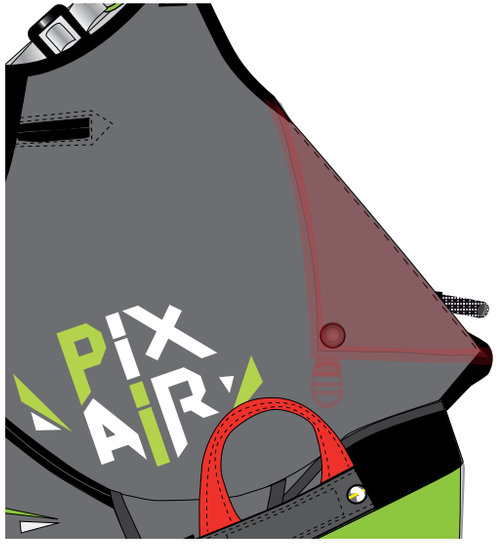
Have the installation checked by a professional outfit.
Conduct an extraction test every six (6) months to assure proper system functionality.

Note : conducting and extraction test does not imply deploying the reserve parachute which will stay inside its POD.

Gear packing and tips.

Fold the foot-rest fastener

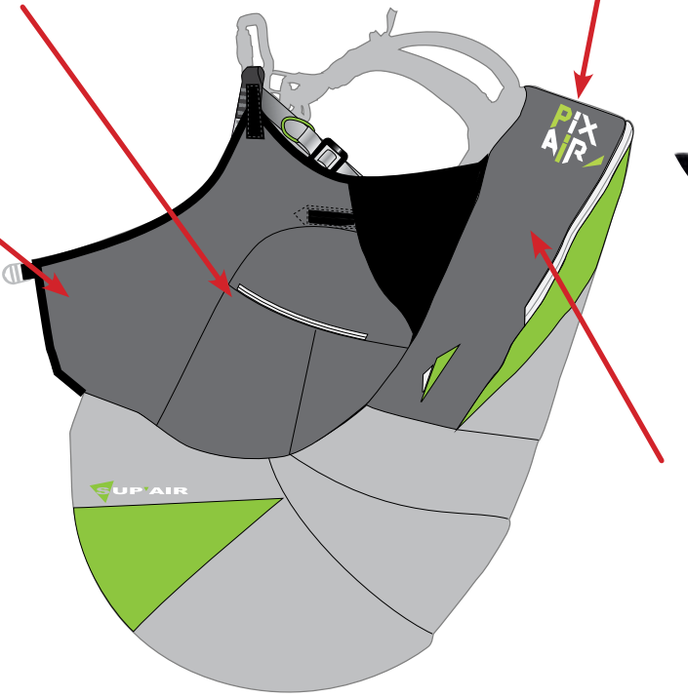
When flying without a foot-rest, fold the fastening side panel inward, and keep it in place with the snap button located on the inner side of the pane.



Radio pocket (with safety lanyard) and storage pocket.

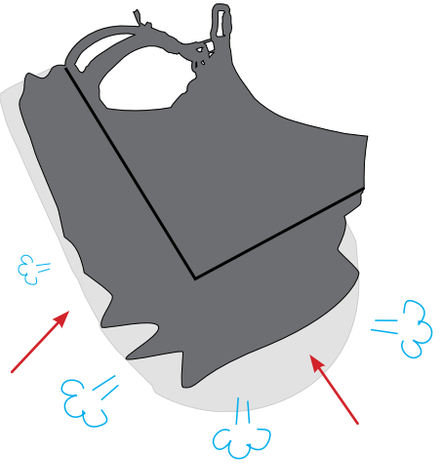
Hydration tube opening.

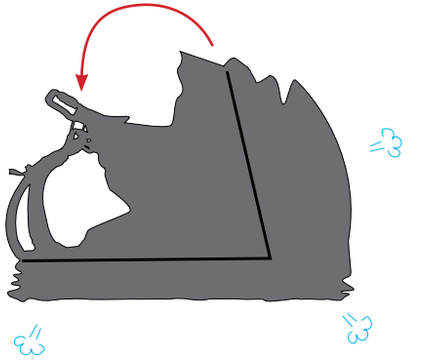
Foot-rest flap fastener

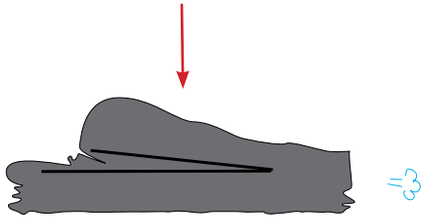


Back storage pocket

Fold the harness.

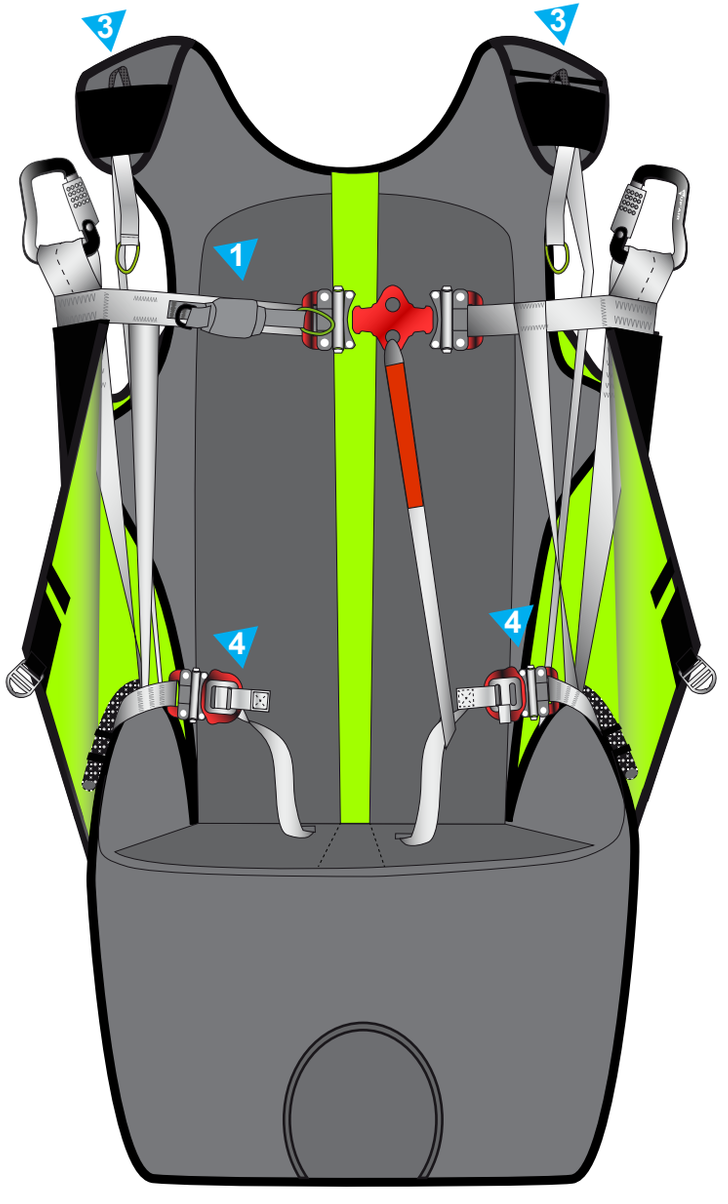






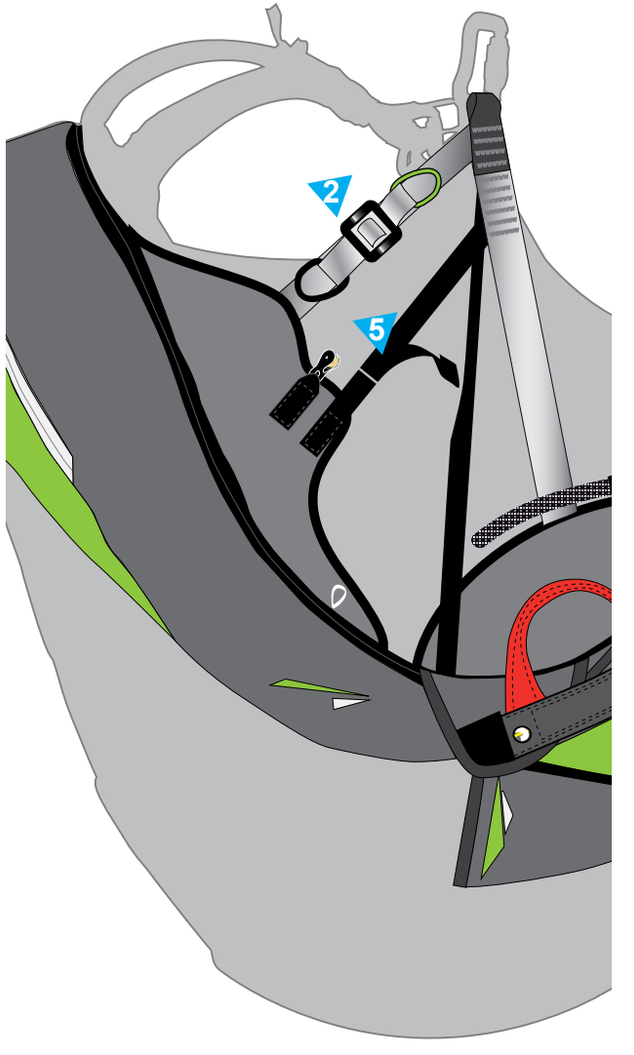
Adjusting the harness.

Adjusting the harness prior each takeoff is vital.



The various adjustments.

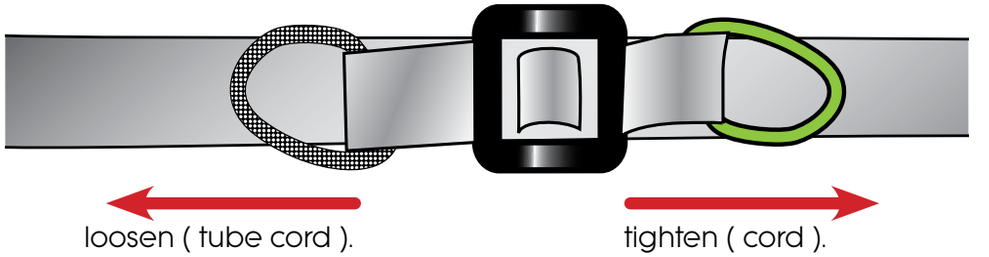
1. Adjusting the chest strap.
2. Adjusting the backrest.
3. Adjusting the shoulder straps.
4. Adjusting the leg straps.
5. Seat depth adjustment



Harness adjustments.

Adjusting the harness.

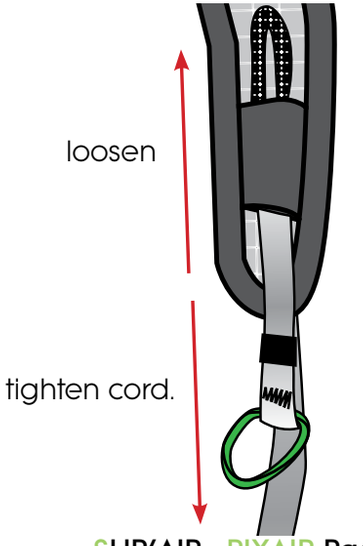
1. **Without strap tension, first adjust the backrest incline at the desired angle.**
>> Tightening will bring the backrest at a more vertical angle (recommended posture for beginners).
>> Loosening the backrest will tilt the back support rearward.



2. Adjusting the chest strap.

The distance to consider corresponds to the length between the middle points at the bottom of each carabiner.
The ideal distance varies between paragliding wing models. Adjust your harness's chest strap according to the wing manufacturer's recommendations.

Tightening the chest-strap provides more stability but less piloting efficiency while increasing the risk of riser twisting.
On the contrary loosening the strap provides more efficiency but can be dangerous in turbulent aerology (increased risk of falling towards the collapsed side of your glider).



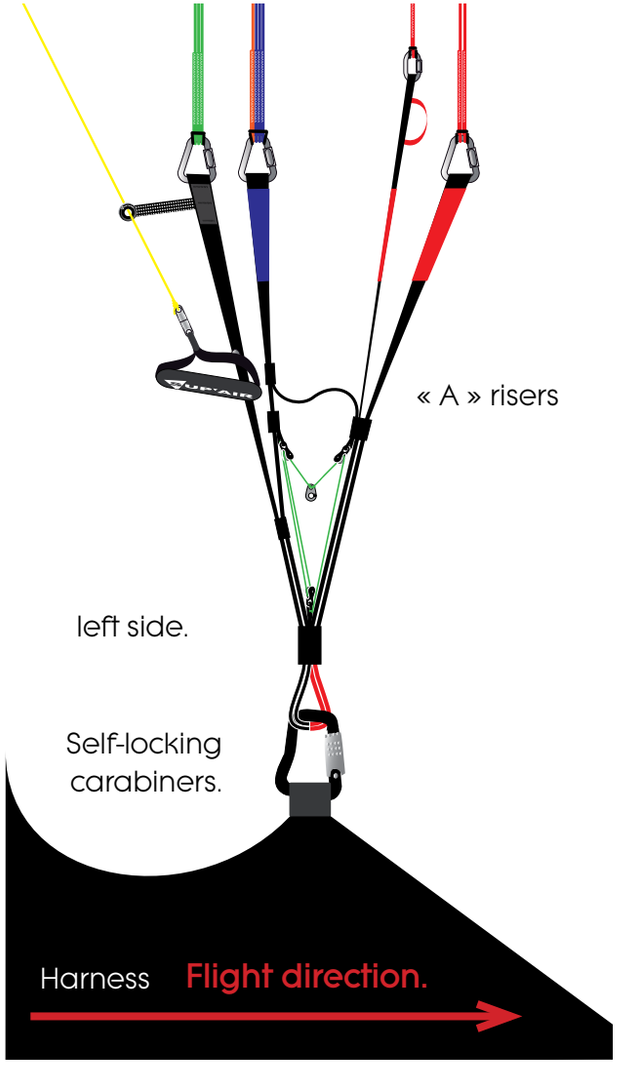
3. Adjust the shoulder straps length using the trimmers.

The pressure on the shoulder straps contributes to general comfort in flight. It must be precise: not too tight nor too loose. The upper area of the straps must offer enough support to maintain your torso in a comfortable position.

Connecting the wing to the harness.

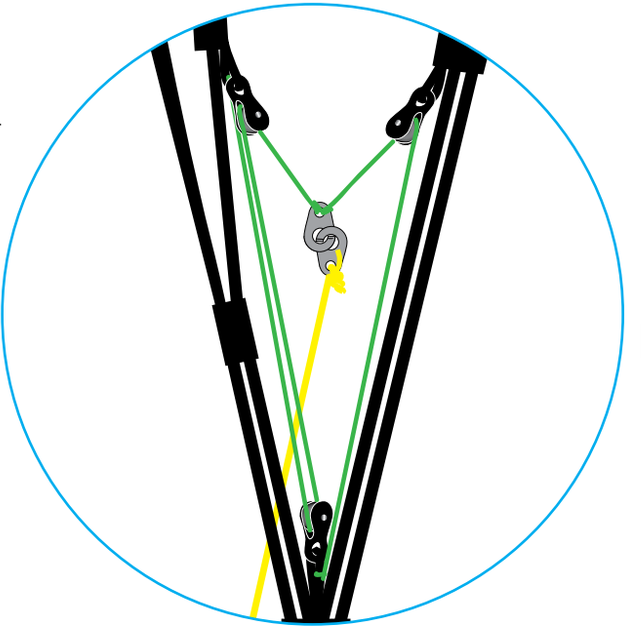
Connecting the wing to the harness.

Without twisting the risers, connect them to the harness attachment loops using the self-locking carabiners.
Check for the risers to be properly positioned and untwisted. The «A» risers must be located at the front and facing the flight direction (see diagram).
Lastly, check for the main self-locking carabiners to be fully closed and locked in place.



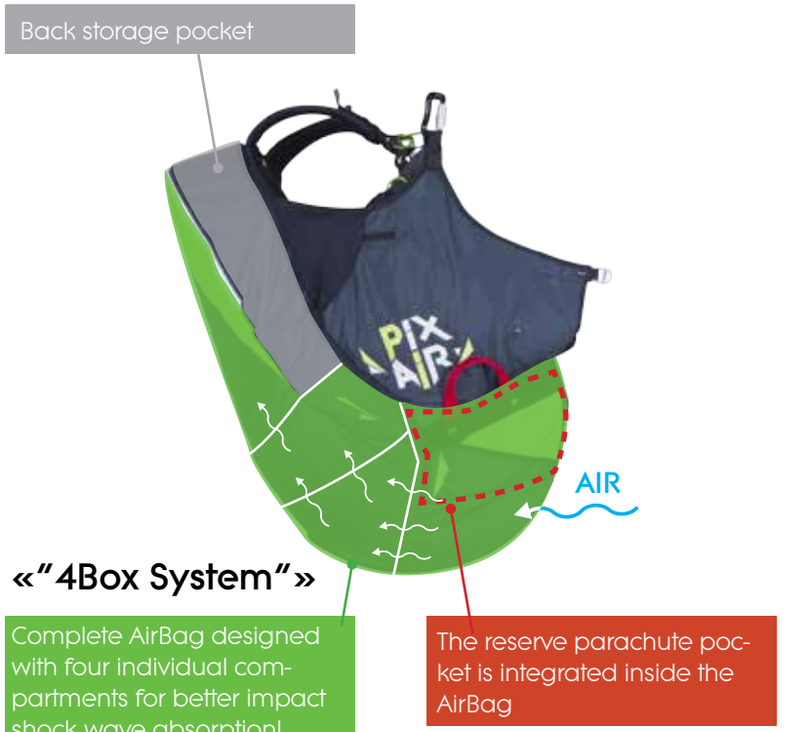
Installing the accelerator.

Install the accelerator by following the previous instructions.
Connect it to the wing using the split hooks.
Once the accelerator/speedbar is connected adjust its length according to the wing recommended measurements.
For correct use there must not be **any line tension at the split hook level when the accelerator/speedbar line is fully relaxed.**



Flight behavior.

Before taking off when walking around or setting up, you will find this harness to be light with minimal volume and ready to operate with its pre-inflated dorsal protection via the AirBag "4Box System".



Once in flight, piloting with the harness is precis, efficient and intuitive while remaining simple to handle and very comfortable in any situation.

To discover your new harness, we will recommend making your first flights on a school training hill in calm weather conditions with low wind speeds.

Flight phases.

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 haven't changed.
- Check that all zippers and buckles are closed.
- Check that the speedbar is correctly connected and adusted.
- Check that no rigging line or other object comes in contact and interfere 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 terrain.

Flight phases.

In flight.

Once in flight, the PIXAIR's handling becomes instinctive and stable.
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.

Care

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.

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 PIXAIR were specifically selected for their quality and resilience 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.

Independently from the pre-flight procedure, deploy and vent your reserve parachute on the ground before repacking it. The procedure must be done at least once a year.

Care

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

- Self-locking Zicral 45mm carabiners. (Ref.: MAILCOMOUS).
- Reserve parachute handle (Ref. : POIB).
- Wooden seat plate (Ref. : MPPL016 to MPPL020 according to your harness size).

Materials

Fabrics

Polyamide 210D RIPSTOP

Straps

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

SUP'AIR fabrique ses sellettes en Europe. La majorité des composants utilisés provient d'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 PIXAIR 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.

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.

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.

Pilot's gear.

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

Service Book.

This page will help you keep record of your ACCESS AIBAG scheduled maintenance.

Purchase date	
Owner's name	
Name and stamp of the shop	

☐ Care
☐ Resale

Purchase date	
Workshop's name/ Buyer's name	

☐ Care
☐ Resale

Purchase date	
Workshop's name/ Buyer's name	

☐ Care
☐ Resale

Purchase date	
Workshop's name/ Buyer's name	

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☐ Resale

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Workshop's name/ Buyer's name	

DESIGNED IN **ANNECY**

100% MADE IN **EUROPE**

SUP'AIR

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