

SUPAIR

English

DELIGHT3

User's manual

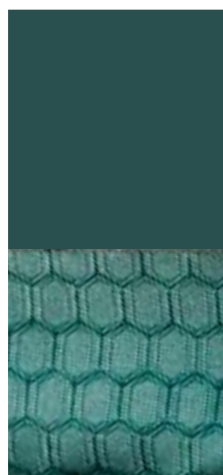
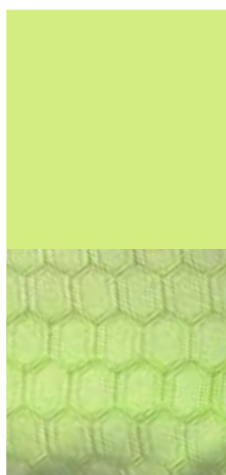
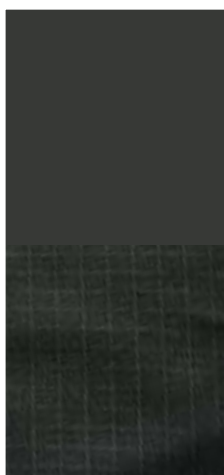
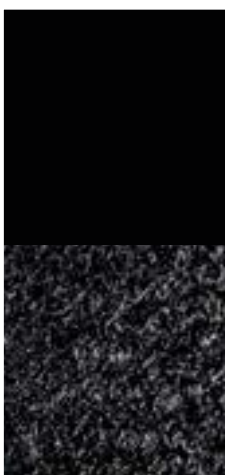


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RCS 387956790

Revision index : 19/03/2019



Thank you for choosing the DELIGHT3 We are glad to be able to share our common paragliding passion with you.

SUPAIR has been designing, producing and selling free flying equipment since 1984. By choosing a SUPAIR 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.

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 last up to date information about this product, On our website www.supair.com. If you have any further questions, feel free to ask one of our retailers for answers. And naturally, the entire SUPAIR team is at your disposal on info@supair.com

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

Team SUPAIR

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Welcome to the world of light and high performance gear! The DELIGHT3 is a Cross-country light enough to go hiking with. Its minimal weight and size make it a good choice to carry to takeoff with ease. The air mass is translated to the harness without parasitic interference and hence providing the right environment for refined and efficient piloting. It was designed with schooling and fun in mind to provide full comfort and a worry free learning curve.

The DELIGHT3 harness was certified EN 1651 : 1999 and LTF Nfl II 91/09. Indicating that it meets European and German safety requirements.

After reading this manual, we suggest you to check your harness in static hang-posts to adjust it before your first flight.

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



Advice



Caution !

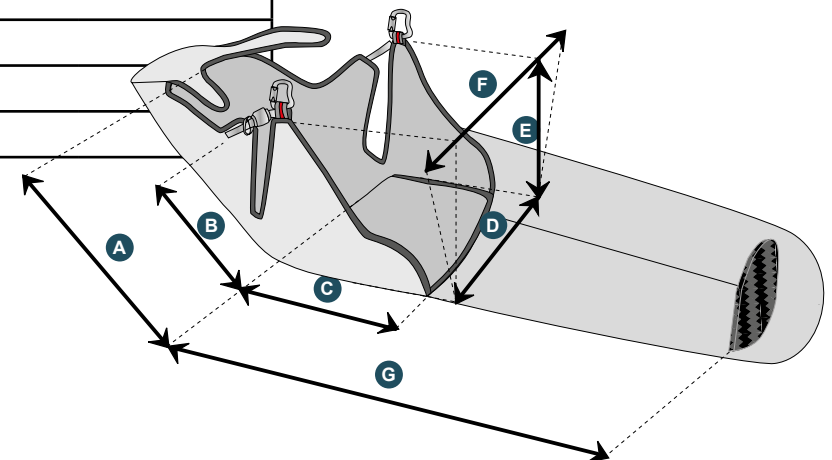


Danger !!

Technical specifications

Model	S	M	L	XL
Pilot size (cm)	150-170	165-185	180-195	> 195
Pilot weight (mini - maxi) (kg)	50 - 65	60 - 85	75 -105	90 - 115
Harness weight (+ carabiners+speedbar)(kg)	3650	3700	3850	4050
Designed for	Parapente uniquement			
Back length (cm)	58	65	72	76
Back inclination adjustment	33	37	41	43
Seat length (cm)	45	45	45	49
Seat width (cm)	35	35	37	37
Carabiners height (cm)	45	45	47	47
Carabiners distance (cm)	38-45	38-45	40-46	42-48
Speedbag length (cm)	83	88	93	98
Impact damping system : Airbag	No			
Impact damping system : Bumpair	Yes - 16 cm + Plastazote			
Certification	EN 1651 : 1999 - LTF Nfl II 91/09			
Tandem (Pilot or Passenger)	No			
Acrobatic flying	No			
Towing	Yes			
Reserve parachute pocket volume (L)	3 à 7 Liters			

- A** Back length
- B** Back inclination adjustment
- C** Seat length
- D** Seat width
- E** Carabiners height
- F** Carabiners distance
- G** Speedbag length




Size choice

Choosing your harness' size is important. You will find here below a height/weight table that will help you in your size choice. With its hammock architecture and its "lying flat" flying position, we advise you to try out the harness under a hanging device at one of our retailers in order to choose the correct size.

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

Taille Poids	1m55	1m60	1m65	1m70	1m75	1m80	1m85	1m90	1m95	2m
50	S	S	S	S						
55	S	S	S	S						
60	S	S								
65	S	S			M	M	M			
70			M	M	M	M	M			
75			M	M	M			L	L	
80			M	M	M			L	L	
85							L	L	L	
90							L	L	L	M
95							L	L	L	M
100							L	L		M
105							L	L		M
110										M
115										M

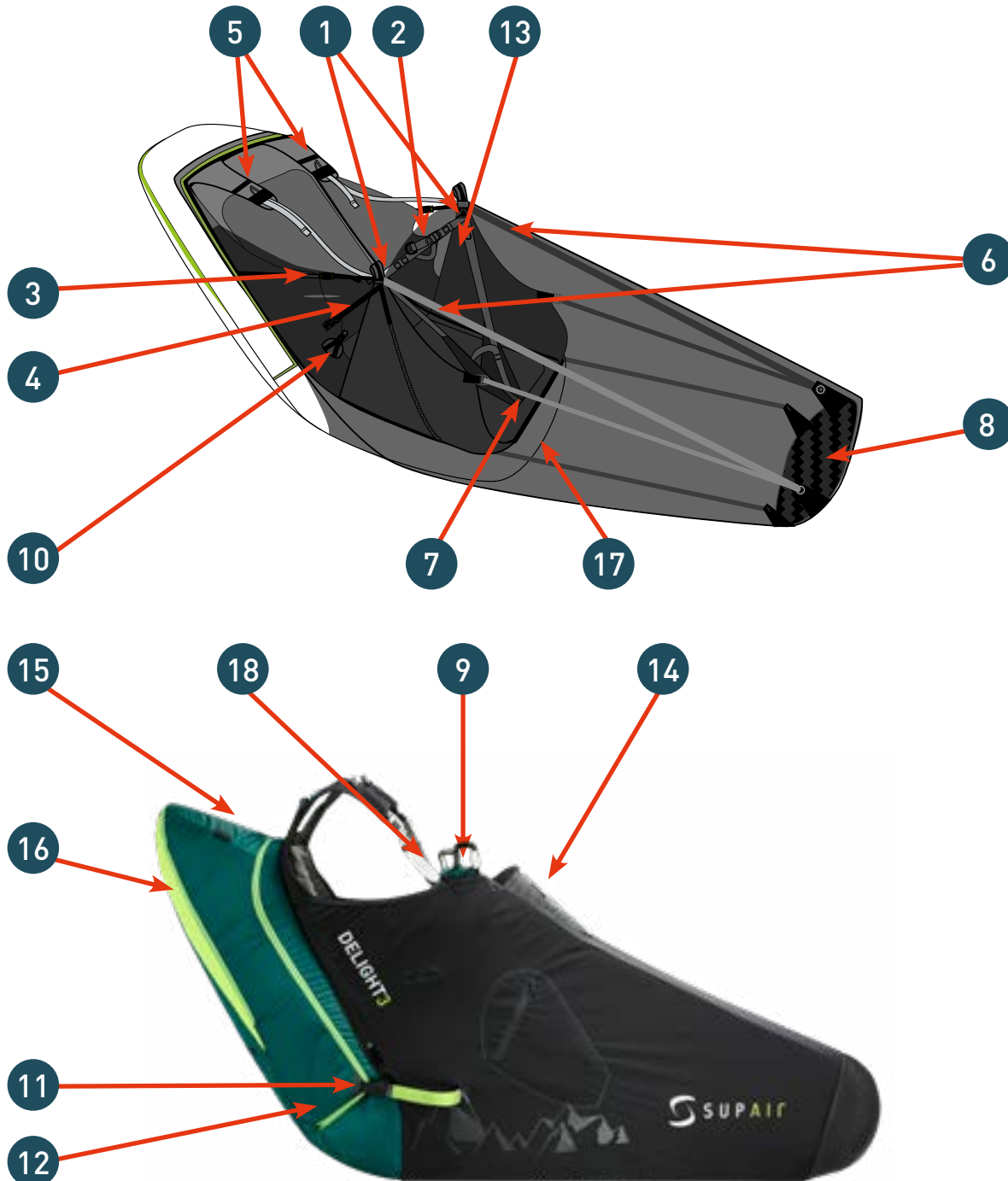
 Preliminary test under hanging device

Components list

- 1 Harness
- 2 Removable Speedbag with integrated cockpit
- 3 D3 reserve parachute handle with POD
- 4 MINI carbon fiber seatplate
- 5 BUMPAIR 16 STK
- 6 Zicral 30 mm carabiners
- 7 Accelerator 2B Speedbag
- 8 Brummel hook speed bar links
- 9 Carbon fiber foot plate
- 10 Dyneema® risers
- 11 Carabiners Plume GRIVEL
- 12 Torric ring
- 13 Safety lanyard
- 14 Reserve parachute pocket safety pin



Harness overview



- 1 Leg and chest straps buckles
- 2 Chest strap adjustment
- 3 Backrest angle adjustment
- 4 Lumbar adjustments
- 5 Shoulder strap adjustment
- 6 Speedbag upper length adjustments
- 7 Speedbag lower length adjustments
- 8 Speedbag carbon fiber foot plate
- 9 Speedbag closing buckles
- 10 Harken® Pulleys
- 11 Rescue parachute handle
- 12 Rescue parachute container
- 13 Safety kit
- 14 Cockpit
- 15 Hydration tube opening
- 16 Back storage pocket
- 17 Ballast
- 18 Radio pocket

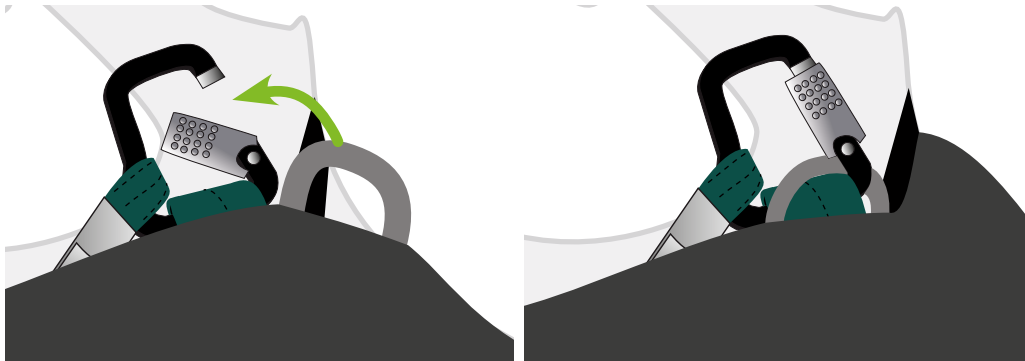
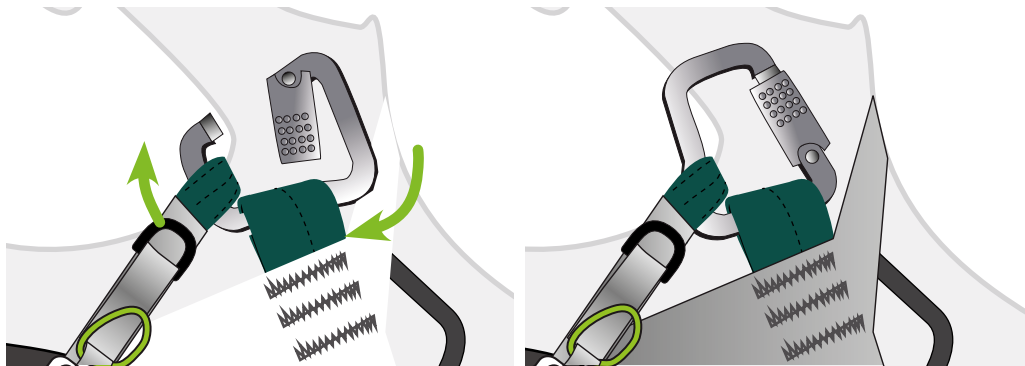
Accessories Assembly

Carabiners

Compatible carabiners:

Zical 30 mm carabiners

Réf. : MAILCOMOUS30



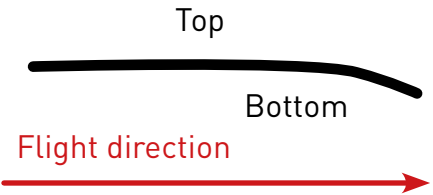
Seatplate

Carbon fiber seatplate

Taille S et M Réf. : MPPL021

Taille L et XL Réf. : MPPL025

Profile view



Front view



Installing the seatplate

1. Open the zipper of the pocket located beneath and at the front of the seat.
2. Open the velcro located at the top of the pocket and access the seatplate compartment.
2. Insert the seatplate in its compartment and close the velcro.

Rear

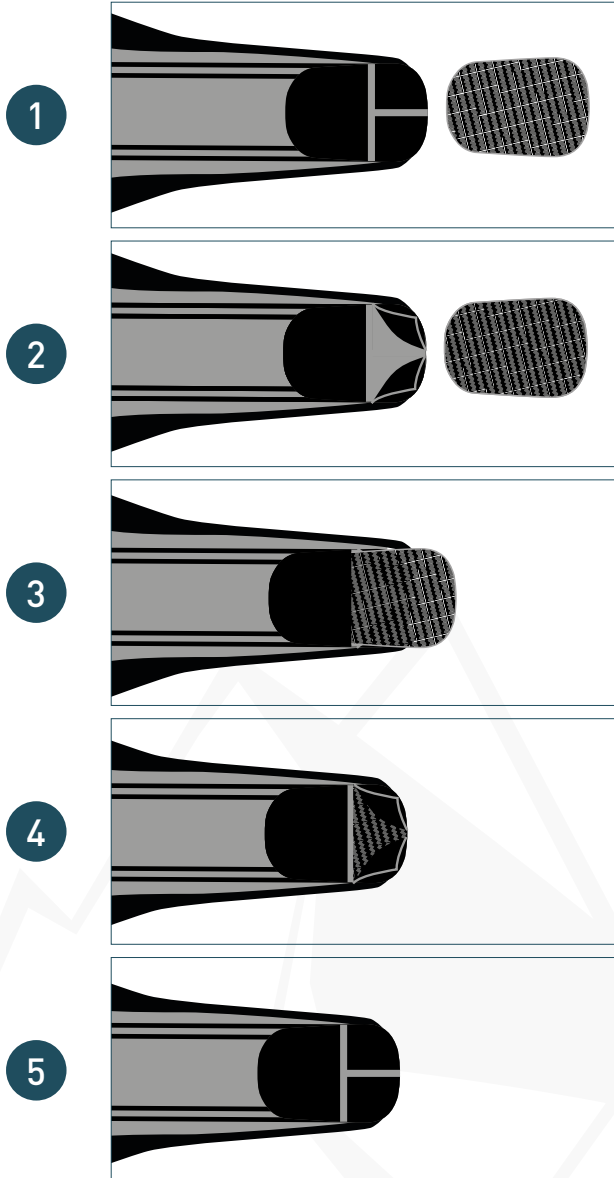
Front



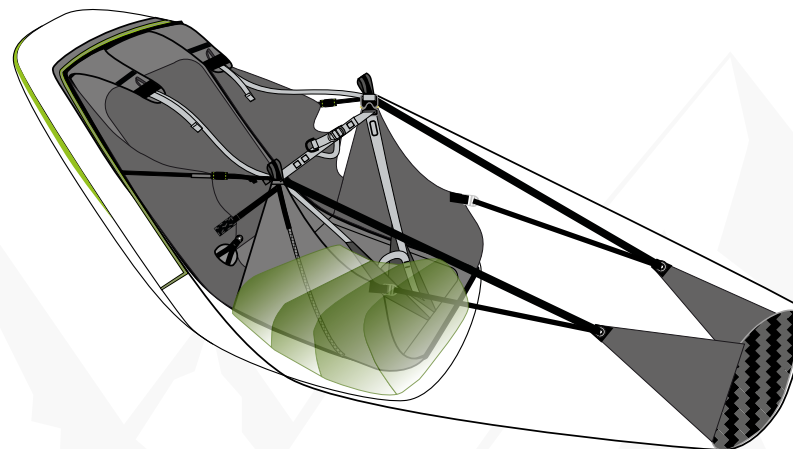
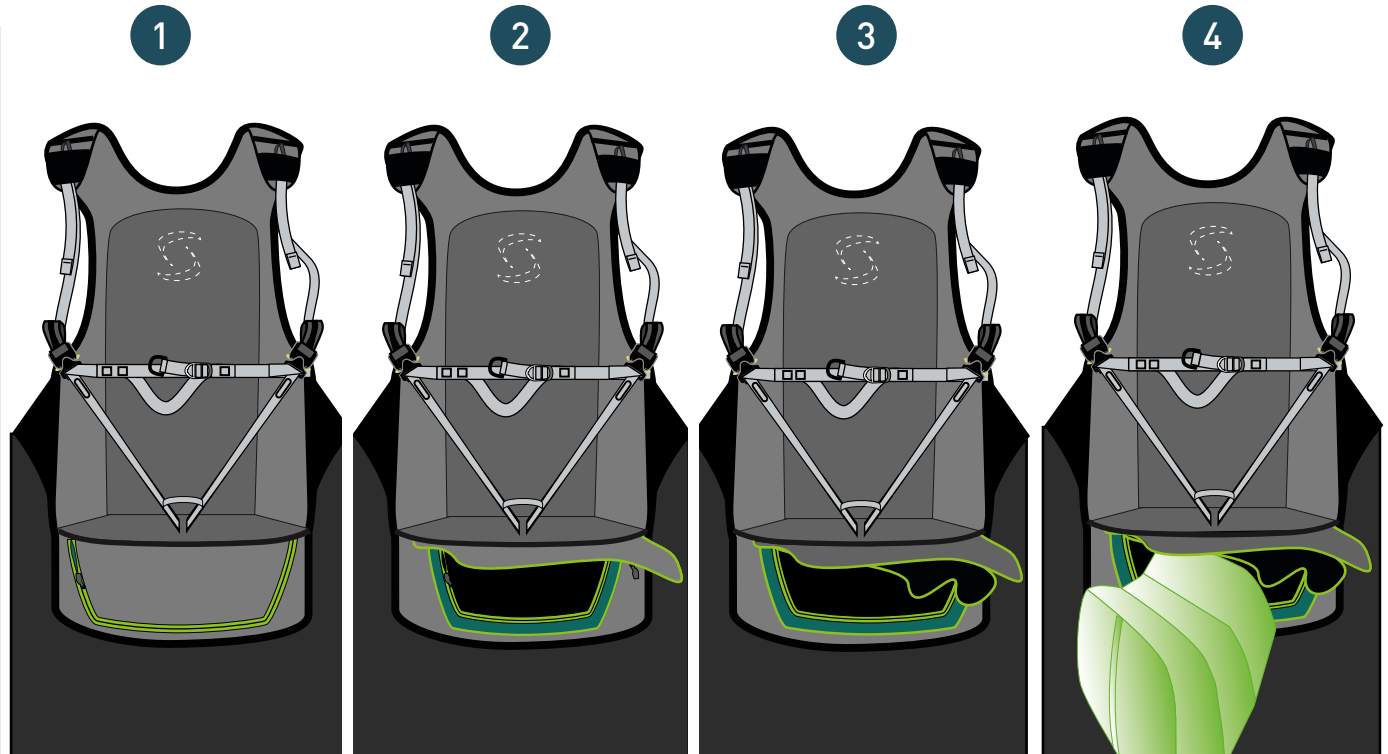
Flight direction

Accessories Assembly

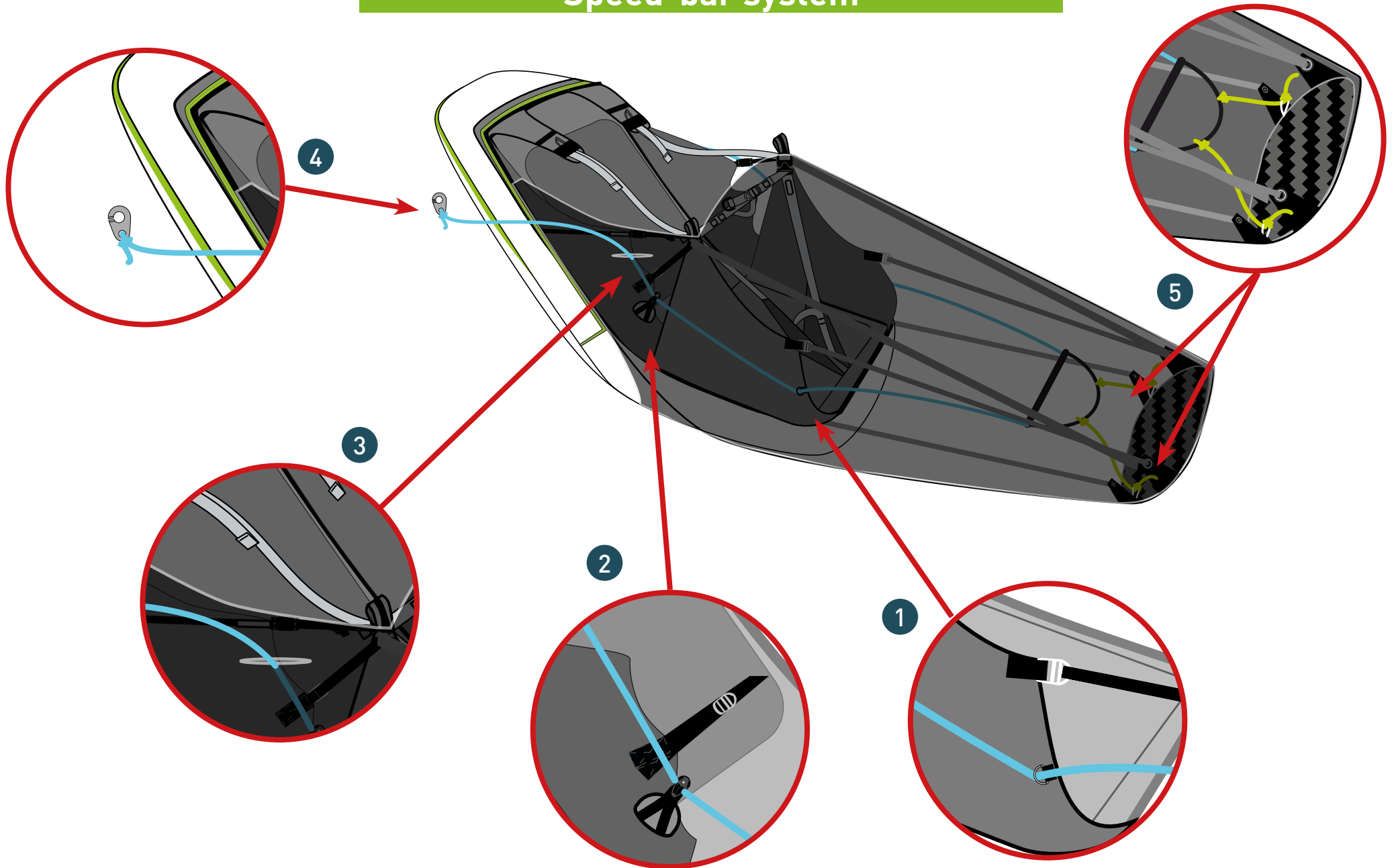
FOOT PLATE for Speedbag



BUMPAIR



Speed-bar system



Installing the reserve parachute



Thank you for reading carefully ! We recommend for the initial rescue parachute assembly and installation to be made by a qualified professional.
Folding and installation of the reserve parachute inside the harness must conform to the specific line guide found in this manual.

Rescue container characteristics

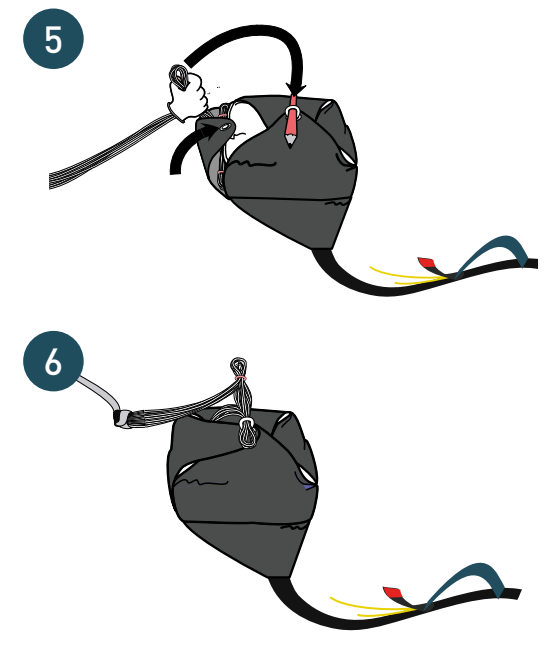
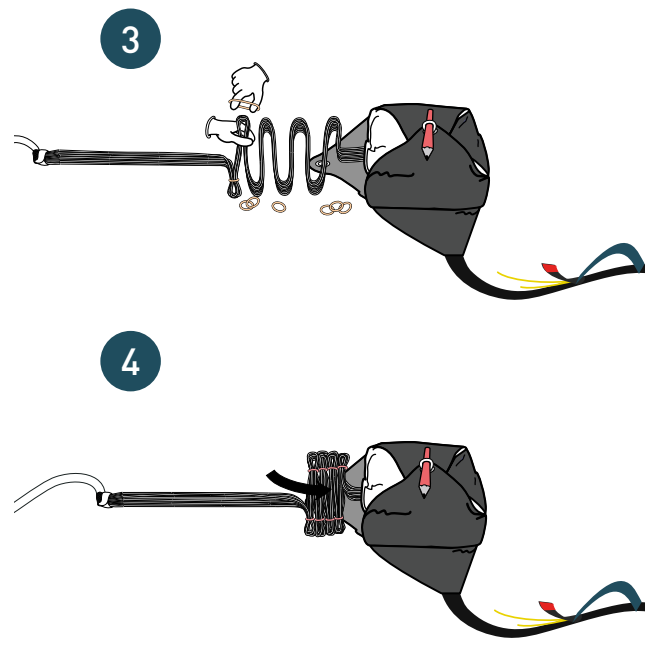
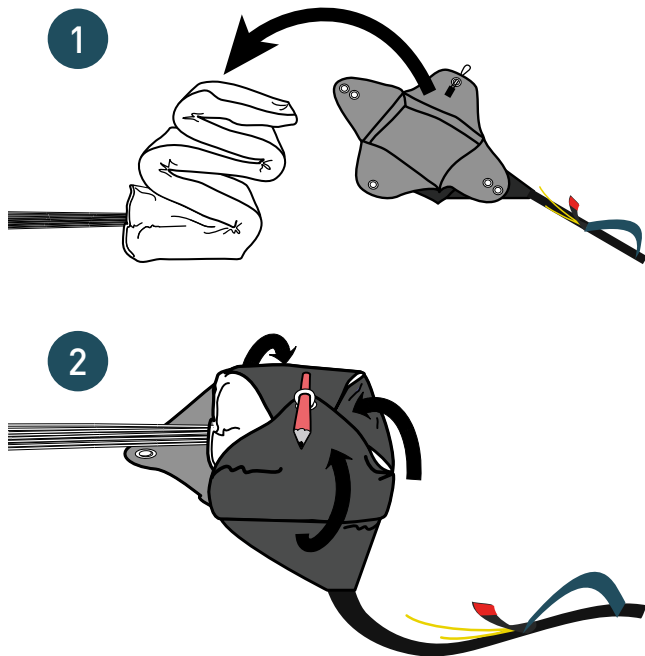


- Container/drawer closed with zipper
- Locked with a double cable system
- Right sided handle and opening
- 3 to 7 liter volume capacity
- Compatible with the SUP'AIR START M, SHINE, FLUID S & M rescue parachutes and other solo rescue parachutes

Delight3 size S et M			
compatibles reserves	S	M	L
SHINE	✓	✓	✓
START		✓	✗
FLUID	✓	✓	✗

Delight3 size L et XL			
compatibles reserves	S	M	L
SHINE	✗	✓	✓
START		✓	✓
FLUID	✗	✓	✓

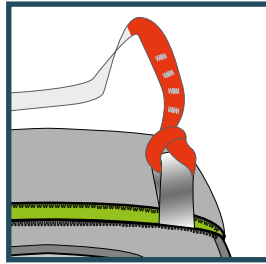
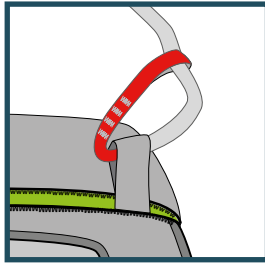
Reserve parachute installation in the POD



Installing the reserve parachute

Connecting reserve risers >> harness

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



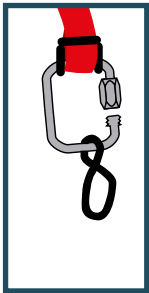
- Assemble everything correctly.
- Make sure for the risers not to be longer than one another.
- Tighten each connection securely.



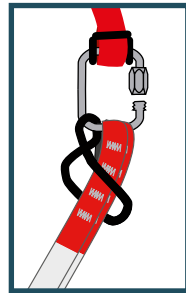
Connecting reserve parachute to the risers

One maillon Rapide® 7mm and two toric flexible rings are needed

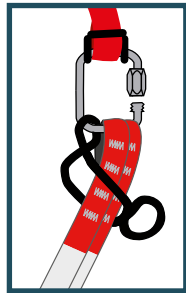
1



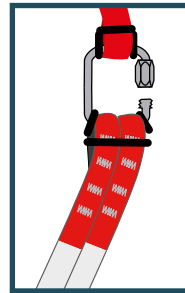
2



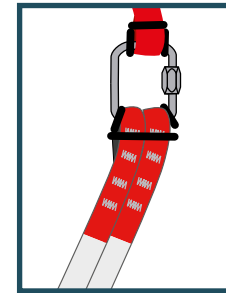
3



4



5



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

- Push the end risers through the toric ring
- Push the maillon through the risers buckles

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

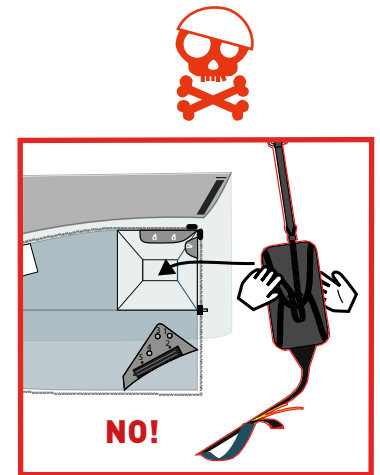
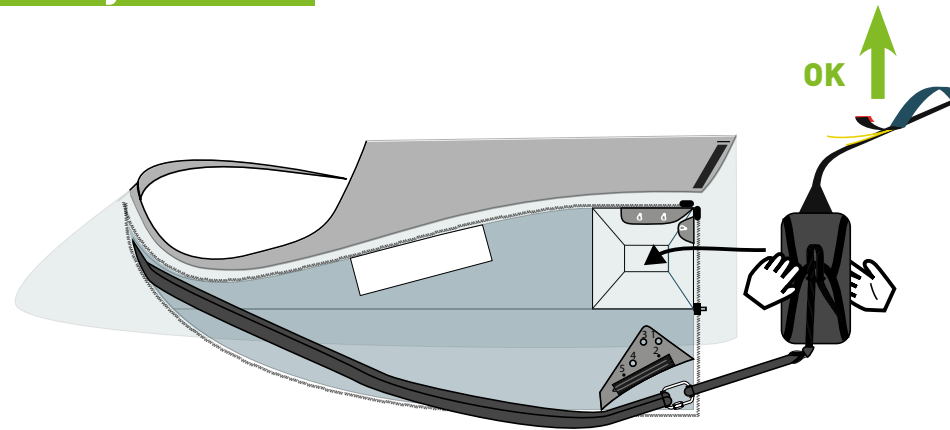
- Tidy up the assembly
- Be certain for the riser end loops to be securely fastened
- Close the Maillon Rapides® by hand first
- Tighten it using pliers by making a clockwise 1/4 turn

Installing the reserve parachute

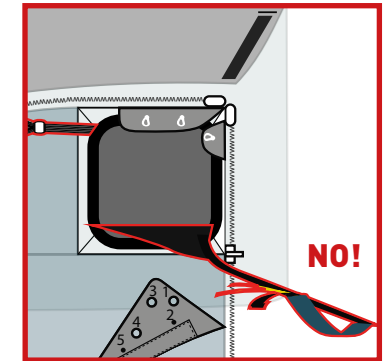
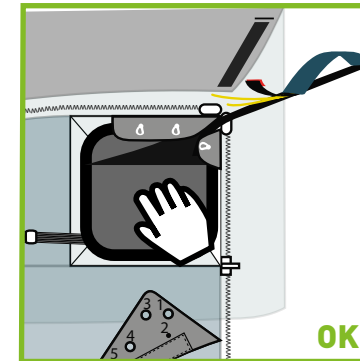
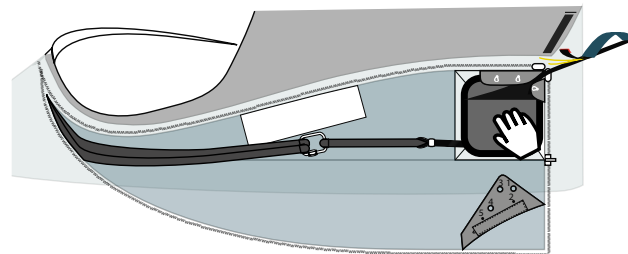
Rescue parachute assembly

- 1 Place the reserve parachute inside the reserve parachute pocket with the handle on the inner side of the harness.

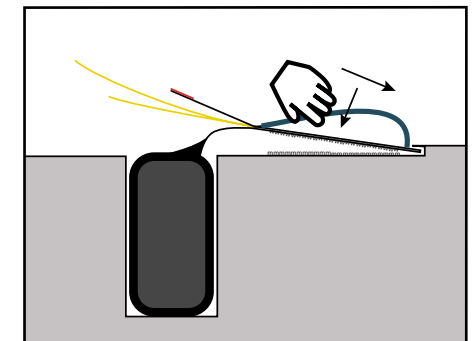
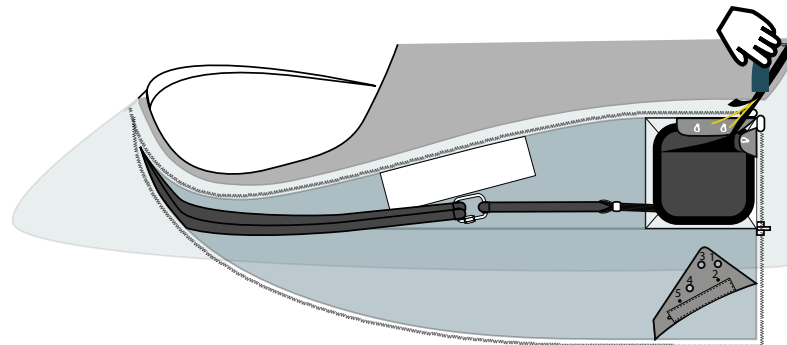
WARNING! The POD side handle must be facing toward the front of the harness. Any other position may result in a malfunction of the reserve parachute extraction.



- 2 Push the reserve parachute to the end of the reserve parachute pocket.



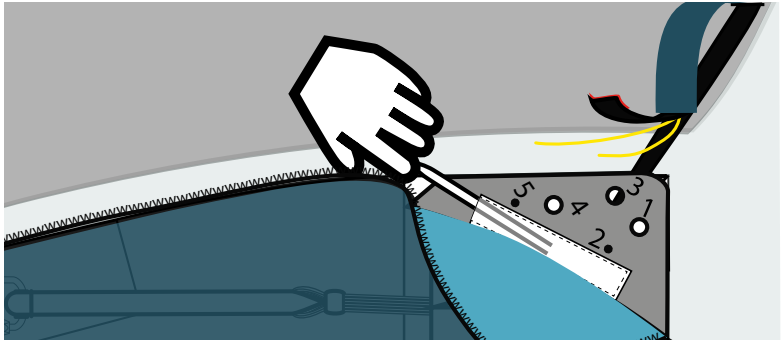
- 3 Fasten the handle on the side panel by sliding the tongue in the receiving slot, and then placing it on the Velcro®.



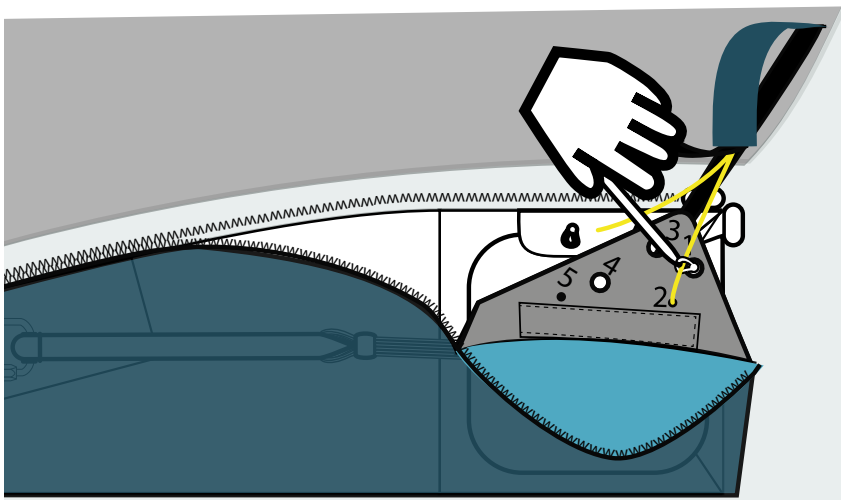
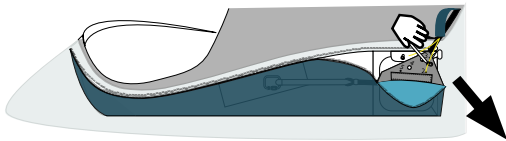
Rescue parachute assembly

Installing the reserve parachute

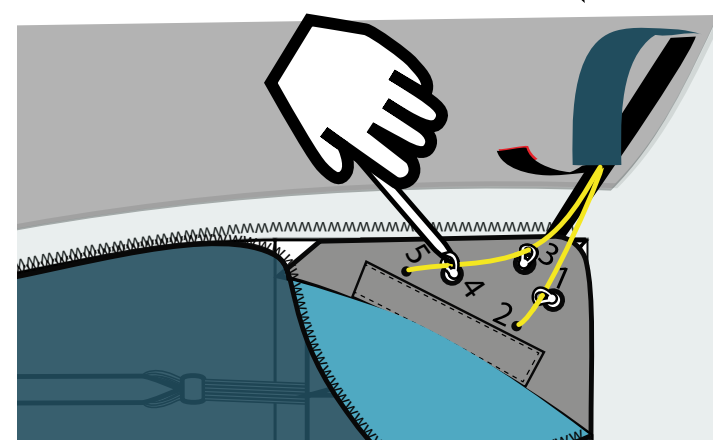
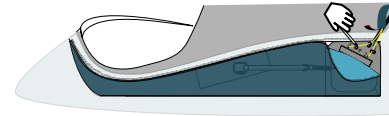
- 5 Take the safety pin



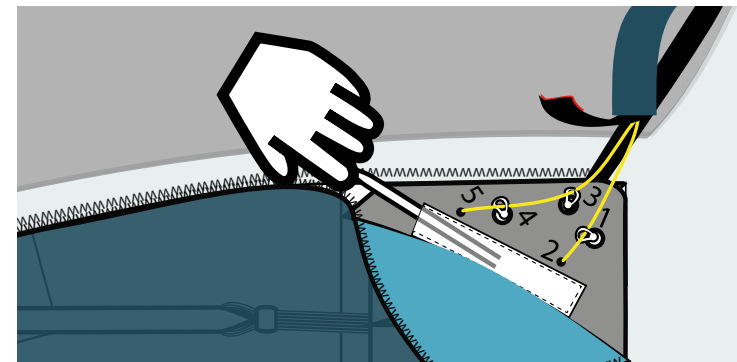
- 6 Using the safety pin, push the handle's short cable through the white lanyard loop and through grommet #1, then the end of the cable in hole #2



- 7 Push the second handle cable through the white lanyard loop and through grommet #3, then grommet #4, then the end of the cable in hole #5

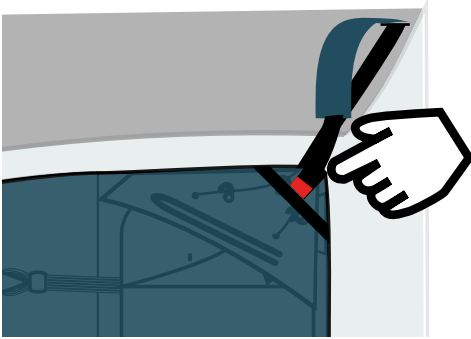


- 8 Tuck away the safety pin

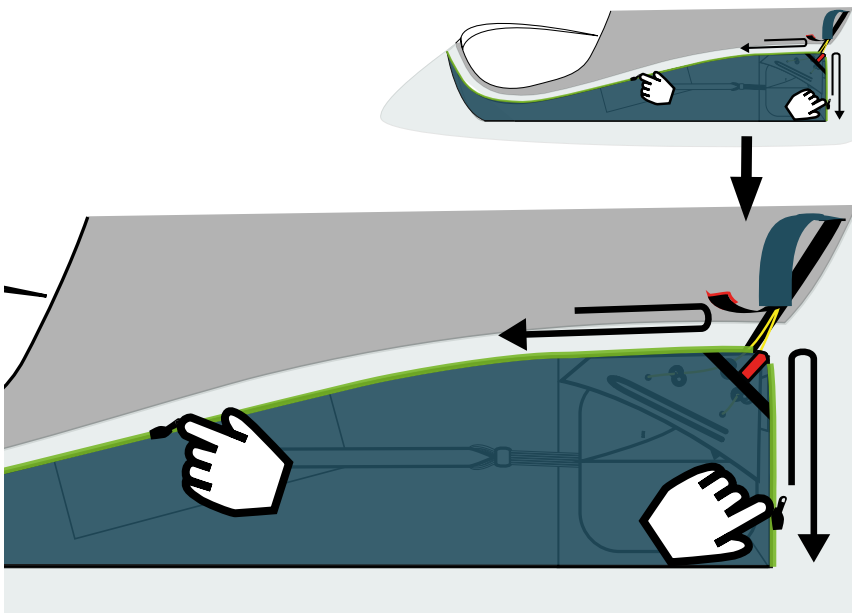


Rescue parachute assembly

- 9 Place the handle indicator tab in the small pocket provided for this purpose



- 10 Close the each Zip



Installing the reserve parachute



Mandatory extraction test procedure



Check the completed installation during a hang-test.

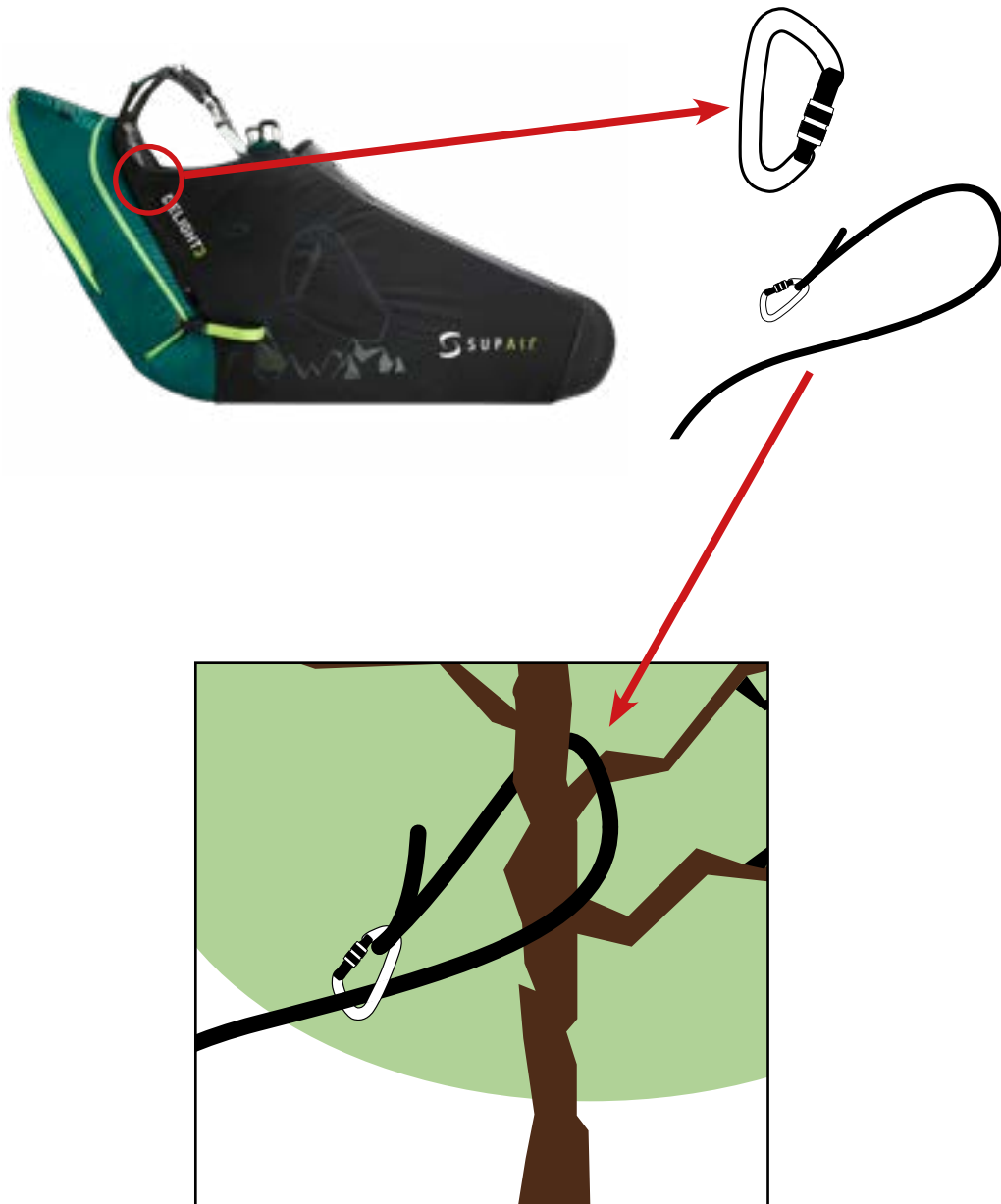
Have the installation checked by a professional outfit. Conduct an extraction test every six (6) months to assure proper system functionality.

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

Gear packing and tips



How to secure oneself after a tree landing



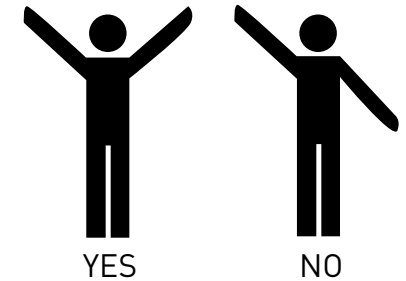
Call for help after an accident

Emergency call numbers



EUROPE / INDIA	112
USA / CANADA	911
CHINA / JAPAN	119
NEPAL	101
IRAN	112
AUSTRALIA	000
NEW ZEALAND	111

Help needed?



Flashlight SOS:



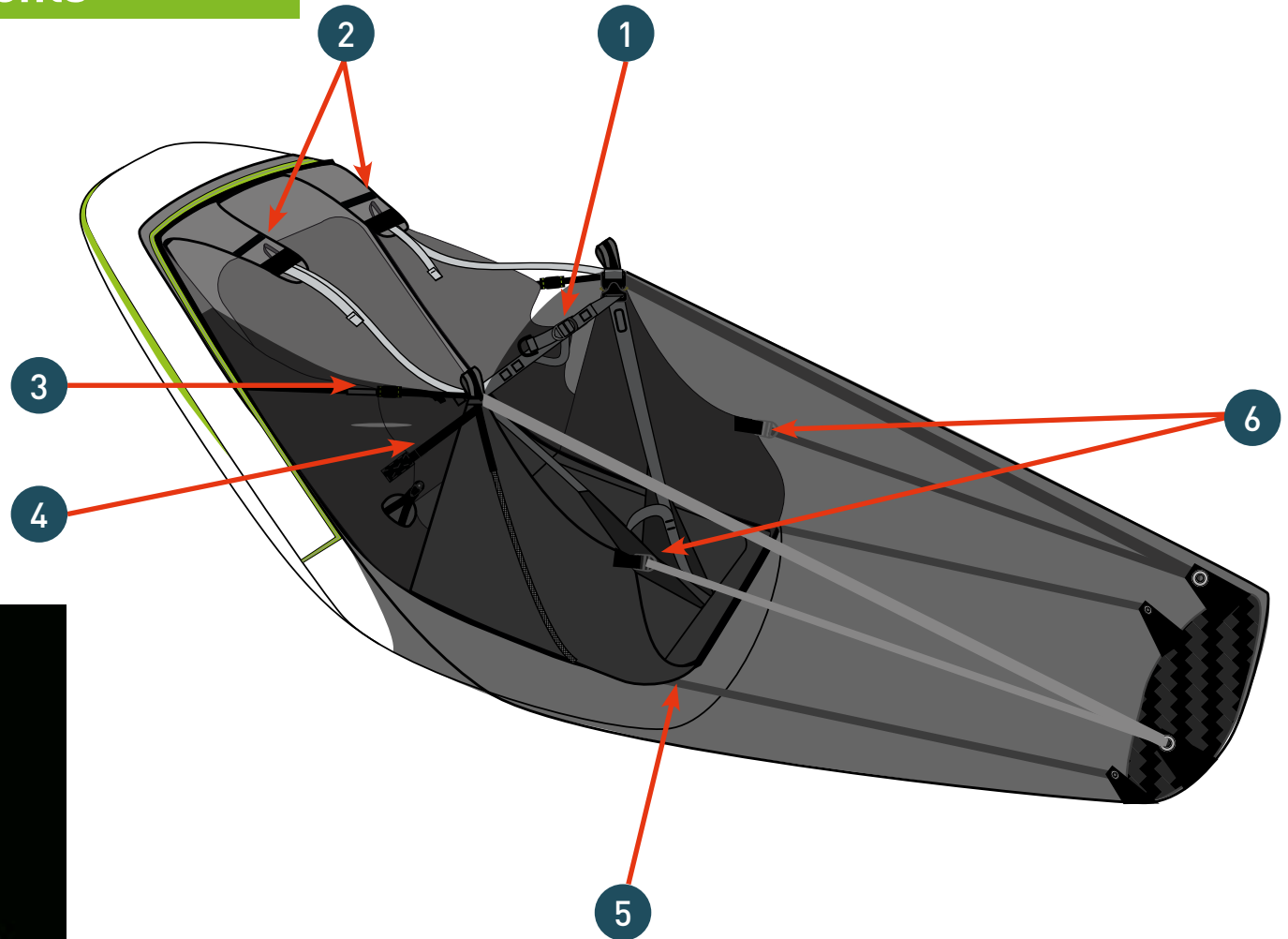


Adjusting the harness prior using your harness is vital.

Adjusting the harness


The various adjustments

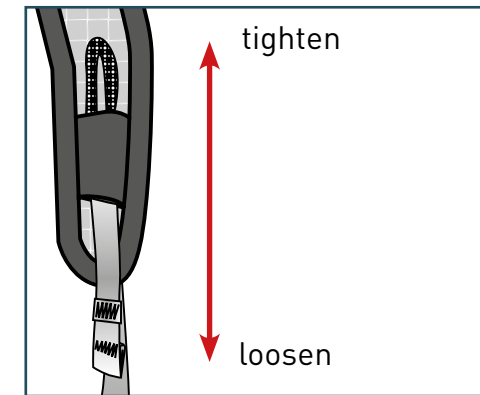
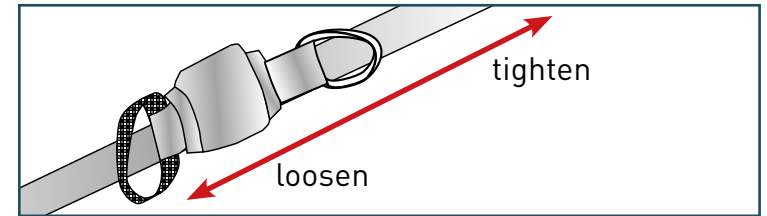
- 1 Adjusting the chest strap
- 2 Adjusting the shoulder straps
- 3 Adjusting the backrest
- 4 Lumbar adjustments
- 5 Lower Speedbag length adjustment
- 6 Upper Speedbag length adjustment



Harness adjustments

Adjusting the harness

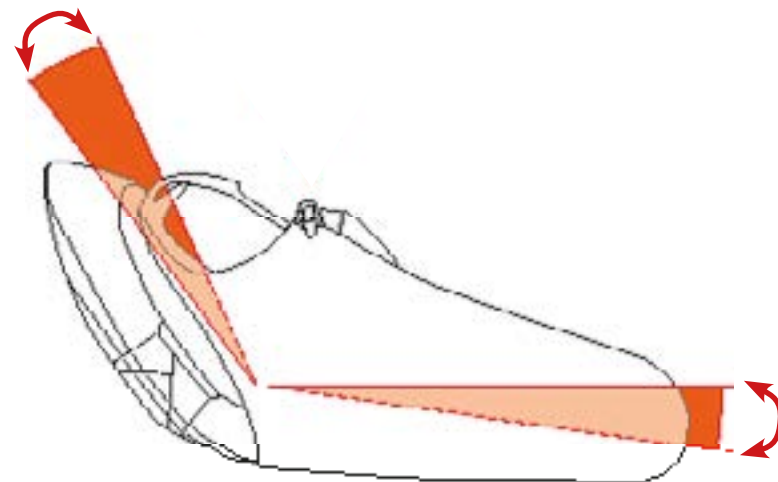
- 1 Sit in the harness connected to a hang-test device. Fasten the self-locking buckles.
 - 2 Adjust the shoulder straps using the shoulders adjustment buckles.
 - 3 Adjust the backrest using the two lateral buckles relative to your piloting posture.
 - 4 Adjust the Speedbag length with its upper and lower adjustment buckles.
-  Tension on the shoulder straps helps with comfort, and must be precisely adjusted.
- 5 The internal lateral adjustment enables the lower backrest section to be fine tuned and reduce the empty space commonly found on the lower part of the spine while seating.



Adjusting the Speedbag

Once well seated inside the harness, there is only the backrest to adjust.

- >> Tilting the Speedbag angle.
- Shorten the Speedbag upper adjustment straps.
- >> Tilt the lower Speedbag section.
- Lengthen the upper Speedbag straps.



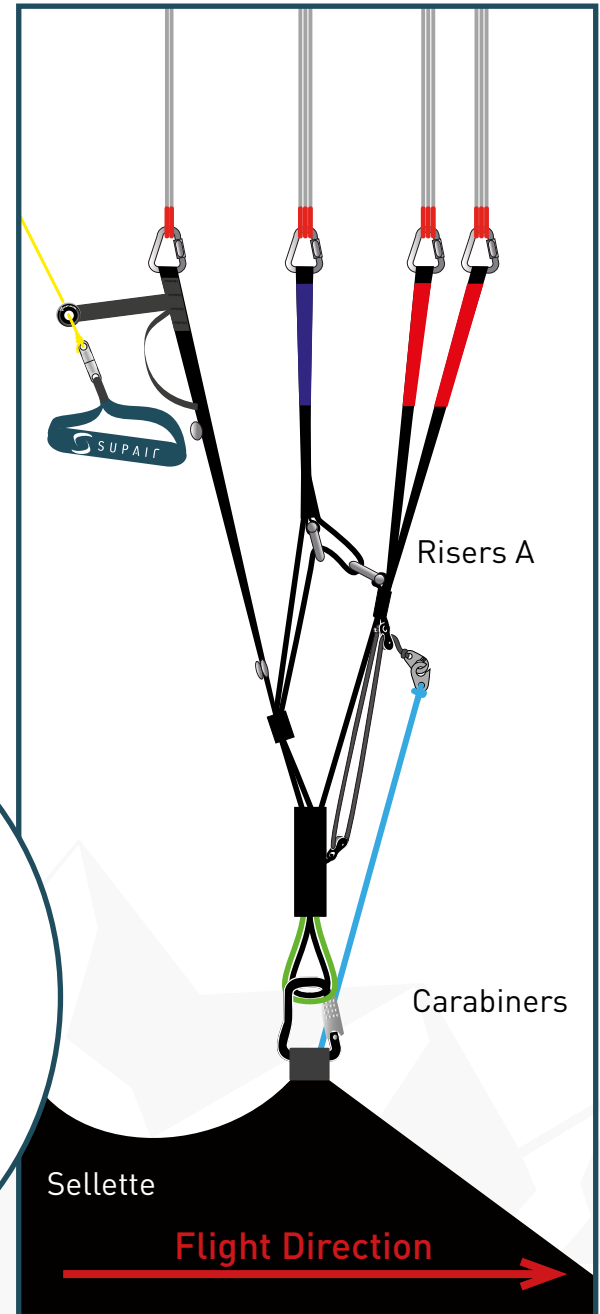
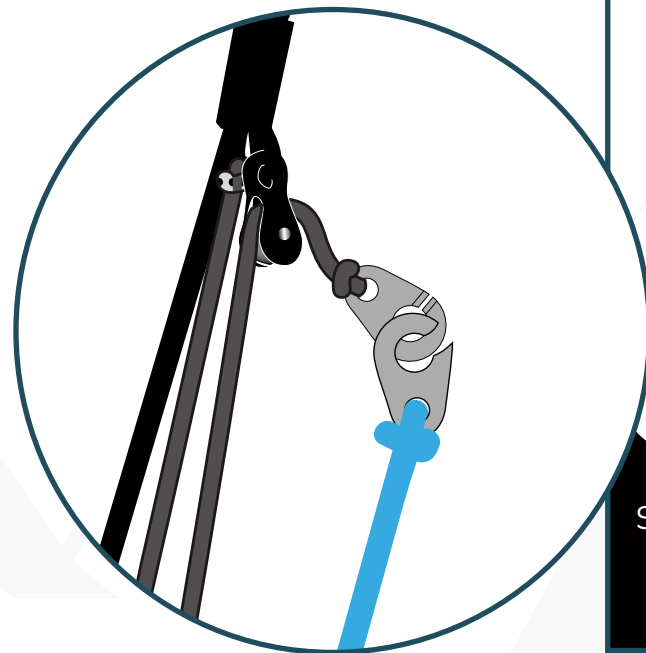
Connecting the wing to the harness

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 instructions found on page 11. Connect it to the wing using the split hooks. Once the accelerator/speedbar is connected, adjust its length according to your measurements. For correct use, there must not be any tension at the split-hook level when the accelerator/speedbar line is fully relaxed.



Flight behavior

The DELIGHT3 is designed for long technical flights. Its behavior is predictable, precise and stable enough to be used with a precise high level reactive wing, not necessitating heavy weight shifting or high performance modern wings reactive enough to necessitate heavy weight shifting. By removing the seatplate, the harness follows the pilot's body contour around the hips, becomes more stable and less precise. When flying outside the wing's recommended limitations without the seatplate, the glider demands greater pilot input.



Pre-Flight control



- Check that the harness and the carabiners are not damaged
- Make sure that the reserve parachute safety cables to ride through the closing tabs keeping the reserve rescue pocket flaps closed.
- Check that your personal settings haven't changed.
- Check that all zippers and buckles are closed.
- Check that the speedbar is correctly connected and set up.
- Check that no rigging line or other object comes in contact with rescue parachute handle.
- Make sure that the self-locking carabiners are locked and connected to the paraglider.

Take-off

After a thorough weather conditions analysis, when the decision to fly has been taken, put your harness on and follow the next steps



- Fully close the chest strap buckles.
- Close the Speedbag closing buckle to the right side.
- Close the Speedbag closing buckle to the left side.

During takeoff, maintain a standing posture and grab the Speedbag with one of your heels once far enough from the ridge. Using the foot-rest, push yourself inside the harness..
With help of the foot-rest, push yourself back into the harness.
The Speedbag closes and the Cockpit positions itself automatically.



Do not release your hands from the brakes when you are close to terrain.

In flight



Please set the distance between the two carabiners according to aerology and to the wing manufacturer's recommendations.

Speedbar use



We recommend a cautious speed-bar use due to the increased risk of major 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.

To properly use the speed-bar, keep one foot at the foot-rest center space, and push with the second foot on the first speed-bar to obtain a symmetrical acceleration. Use one foot for the first stage and the other for the second stage.

To decelerate, stop pushing and gradually release the accelerator/speedbar tension.



Landing



When making a landing approach, take your legs out of the Speedbag well in advance. Stand up inside the harness and adopt an upright position in order to run and dissipate the horizontal speed.

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 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 be done only 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 as symmetrically as possible 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 with pivoting shoulders in a paragliding fall (PLF).

Towing

To takeoff under tow, you must be equipped with a quick release specially designed for the task.

Connect the tow bridle to the wing riser loops with a Dyneema adaptor with a resistance greater or equal to 300kg. The tow bridle will then be fastened by using a lark's head knot or an adapted metal link.

To complete the installation, follow the tow bridle reales manufacturer's 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 harness's fabric, webbings, stitching and weaken its integrity.

The zip fasteners 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 rigorous care/maintenance routine.

If your dorsal foam protector is more than 5 years old or has been subjected to 2 significant shocks, replace it by a new identical model.

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 storing.

For transport, protect the harness from any mechanical or UV deterioration (use a bag). Please 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, no rip beginning, no unwanted folds)
- Buckles and carabiners (functionality, wear and tear).
- BUMPAIR dorsal protector damage after substantial impact(s). It must be replaced by a new one after three (3) substantial impacts or three (3) years of use (whichever comes first).



BUMPAIR dorsal protector damage after substantial impact(s). It must be replaced by a new one after two (2) substantial impacts or five (5) years of use (whichever comes first). The threads and fabric used for the manufacturing of the DELIGHT3 were specifically selected for their quality and resilience levels. 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 of the pre-flight check-out, you have to open and unfold your rescue parachute once every year.

Repair

In spite of using the highest quality products to manufacture the DELIGHT3, 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 now offers an extended warranty period reaching beyond the product standard protection plan against manufacturing defects. Please contact us either by telephone or by E-mail sav@supair.com in order to receive a quotation.

Hardware & Parts

- Self-locking Zicral 30mm carabiners (Reference: MAILCOMOUS 30)
- BUMPAIR 16 STK (Reference : PROBUMP16STK)
- Speedbag's double stage accelerator/speedbar (ACCELPOULIE)
- Accelerator/speedbar Split-hooks (Reference : MPPM050)
- MINI carbon fiber plate
(référence : MPPL021 taille S, M ou MPPL025 tailles L, XL)
- Speedbag carbon fiber plate

- (référence : MPPL010 taille S, M ou MPPL024 L, XL)
- White safety pin to close the reserve parachute pocket
- Speedbag
- POD avec Poignée

Materials

Fabrics

N/210D 3line Honey Comb

Speedbag

LYCRA MEMBRANE

Webbings

Polyamide 20 mm (500 daN)
Polyester 25 mm (1250 daN)

Recycling

We have minimized our manufacturing footprint by carefully selecting environmentally friendly materials

If you estimate that your DELIGHT3 has reached the end of its life span, you can separate plastics from metals and recycle them according to your community rules in effect. As for the fabric itself, contact your local authorities to find out how to proceed to discard it.

Warranty

SUPAIR 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 etc, will invalidate this warranty.

The provided safety protections in the SUPAIR harnesses are guaranteed for use in medium temperature (between -10°C and 35°C). The protections lifespan is 5 years or limited to 2 consequent shocks. If an airbag is used instead of foam, check that it is correctly installed.

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 relative to the elements you want to be flying in. Better be safe than sorry ! SUPAIR can not be held responsible for your paragliding decisions or activities.



This SUPAIR 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), boots and 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 or Bumpair 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 n°0501 ,Z.A. du Sanital, 21 Rue Albert Einstein, 86100 Chatelleraut, FRANCE

This page will help you keep record of your DELIGHT3 scheduled maintenance.

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

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

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Workshop's name/ Buyer's name	



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