



User's manual



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

45°54.024'N / 06°04.725'E

[www.supair.com](http://www.supair.com)

English  
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Thank you for choosing to fly our EONA to paraglide with. We are delighted to have you on-board to share our passion for paragliding.

SUPAIR has been designing producing and selling accessories for free flying activities since 1984. By choosing a SUPAIR product you benefit from almost thirty years of expertise, innovation and customer care. We pride ourselves for our work ethics and customer care.

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 latest information and updates on this product on our website : [www.supair.com](http://www.supair.com). If however you have any further questions, do not hesitate to ask one of our dealers.

Naturally the entire SUPAIR team remains at your disposal at [info@supair.com](mailto:info@supair.com)

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

Team SUPAIR

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Welcome to the world of free flying : a shared world of passion.

The EONA wing is a glider meeting all the students and instructors requirements. It was designed for both intensive schooling and private use while providing great inflight comfort all along the pilot's progression curve. The well thought out design and choice of materials were guided by the same quality and longevity objectives.

The EONA glider is EN **EN 926 -1 : 2006 & 926 - 2 : 2013 Classe A. Certified.**

Meaning that this paragliding wing has a maximal passive safety margin built-in in addition to being forgiving and collapse resistant in turbulent aerology.

It is naturally adapted to all flying levels including beginner pilots.

It can be used with most harnesses found on the market today. For better inflight comfort and sensations we will advise you to choose the SUP'AIR progression harness models.

After reading this manual we advise you to inflate & check your wing on a training hill first.

N.B. : The following three icons will help you to read this manual.



Advice

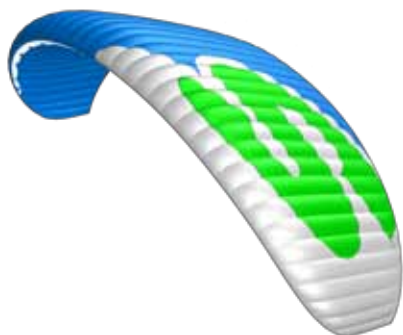


Caution !



Danger !!

Glider EONA	XS	S	M	L
Cell number	41	41	41	41
Flat surface area (m <sup>2</sup> )	20	23	26.5	29.45
Span (m)	9.8	10.51	11.28	11.89
Chord (m)	2.48	2.66	2.86	3.01
Flat Aspect Ratio	4.8	4.8	4.8	4.8
Projected surface area (m <sup>2</sup> )	16.98	19.53	22.50	25.00
Projected span (m)	7.71	8.27	8.88	9.36
Projected aspect ratio	3.5	3.5	3.5	3.5
Glider weight (kg)	4.5	4.8	5.1	5.5
In-flight weight range (kg)	50-70	65 - 85	80 -105	100 - 130
Min. speed (km/h)	38			
Max. speed (km/h)	49			
Certification	EN A	EN A	EN A	EN A
Riser number.	3	3	3	3
Trimmer	no	no	no	no



Colour code WINTER

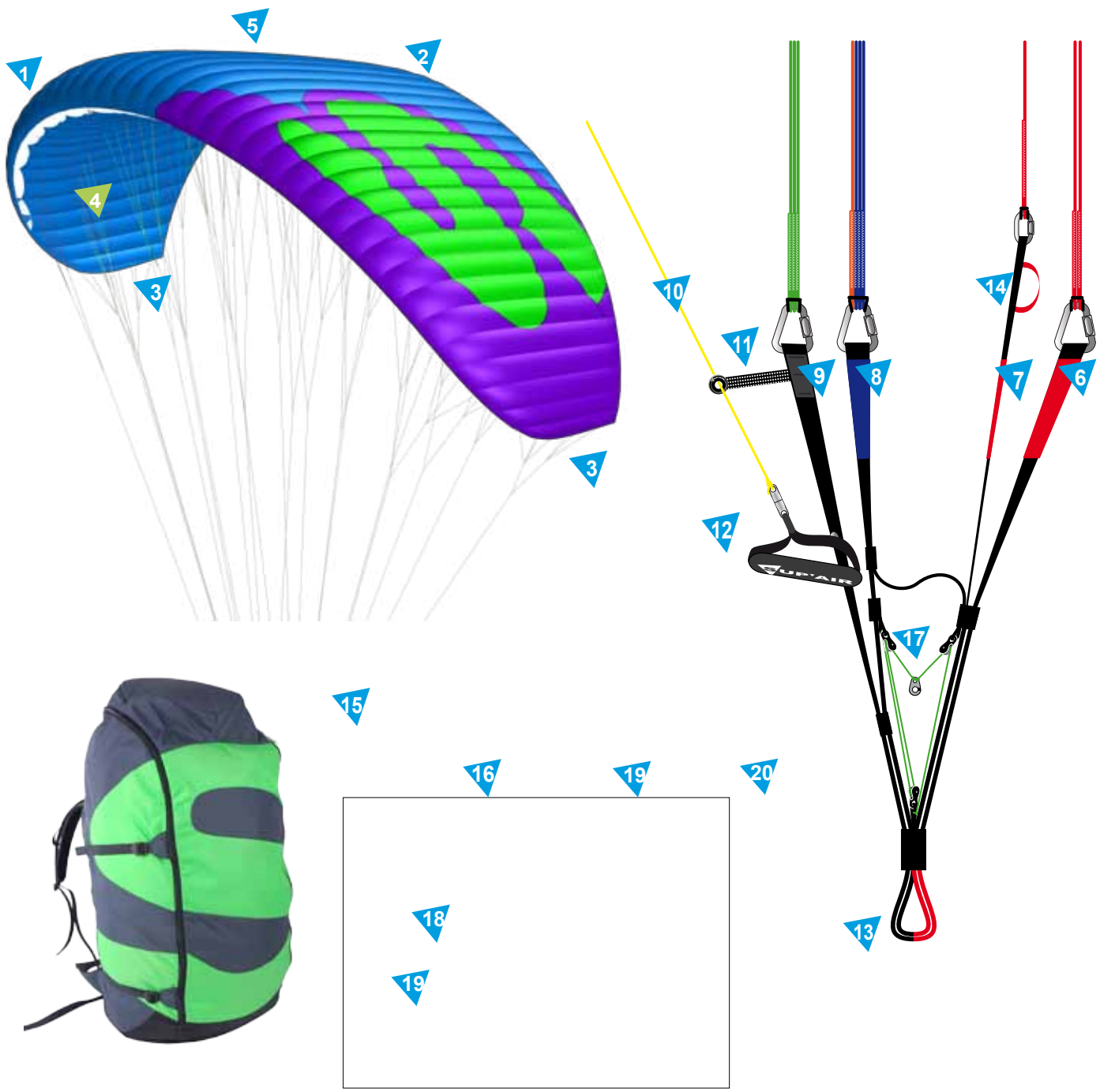


Colour code SPRING



Colour code SUMMER

# Equipment overview



- 1 Leading edge
- 2 Trailing edge
- 3 Stabilizer
- 4 Intrados
- 5 Extradados
- 6 A riser
- 7 A' riser (for big ears)
- 8 B riser
- 9 C riser
- 10 Brake line
- 11 Brake holding guide
- 12 Brake handle
- 13 Riser hook-up loop
- 14 « Ears » kit
- 15 BIRD 100 lt. capacity carrying rucksack.
- 16 Accelerator/Speedbar.
- 17 Accelerator/Speedbar Split-hook.
- 18 Accelerator/Speedbar bar.
- 19 Inner bag.
- 20 Pocket with repair kit.

## Opening the wing

Choose a flat or lightly angled training hill without obstacles or wind.  
 Open your wing and arrange it in a crescent shape.  
 Check the fabric and the lines for any sign of wear or damage. Check for the links connecting the lines to the risers to be fully closed. Identify, separate and arrange the A,B,C, risers as well as the brake lines neatly. Knots or tangles can not be present.

## Choosing an adapted harness.

The EONA glider was certified EN A with a EN1651 & LTF certified harness and hence can be flown with most harnesses models found on the market today. We will advise you to choose a EN1651 and or LTF certified harness with a built-in dorsal protection system.

## Connecting the wing to the harness.

Without twisting the risers, connect them to the harness connection 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 schematic ).  
 Lastly, check for the main self-locking carabiners to be fully closed and locked in place.

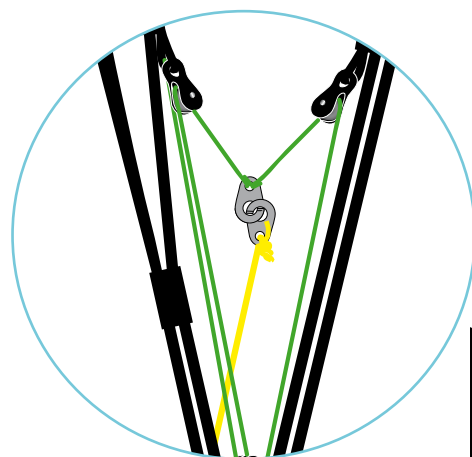
## Harness chest strap spacing

It is advised to adjust the harness's chest strap width based on your wing size :

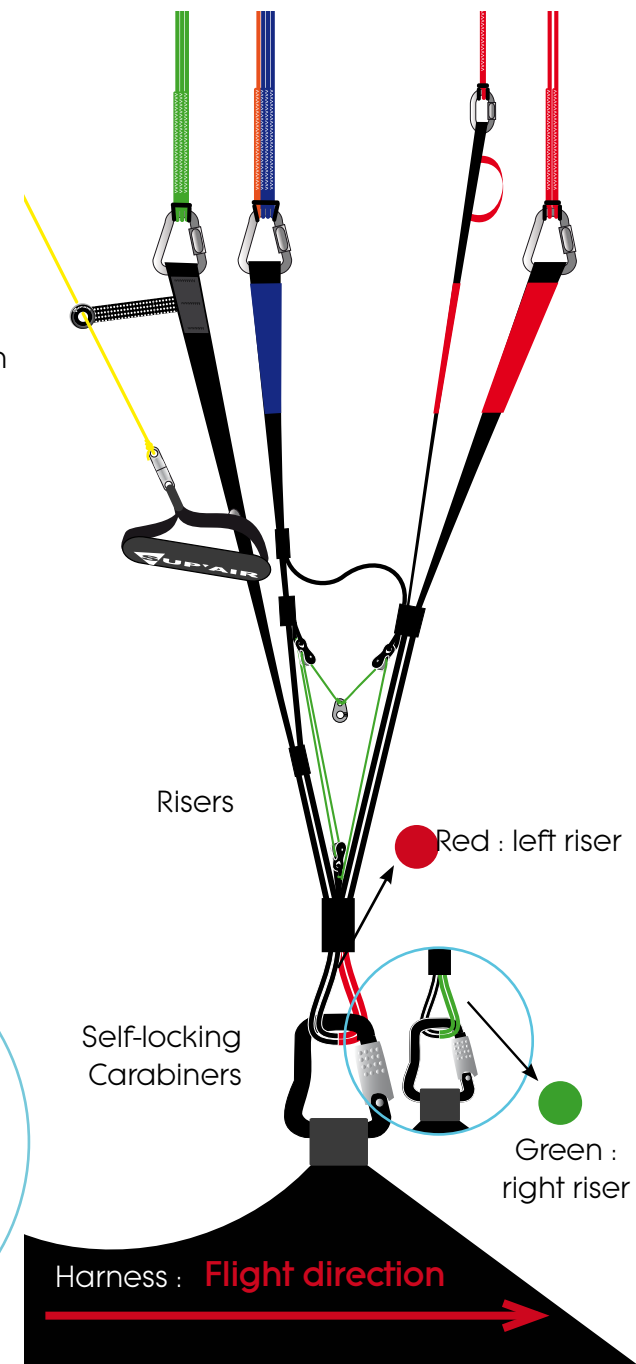
- 38 cm for an EONA size XS
- 40 cm for an EONA size S
- 42 cm for an EONA size M
- 44 cm for an EONA size

## Installing the accelerator

Install the accelerator according to your harness manufacturer's recommendations.  
 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 relaxed.



# Connecting the glider



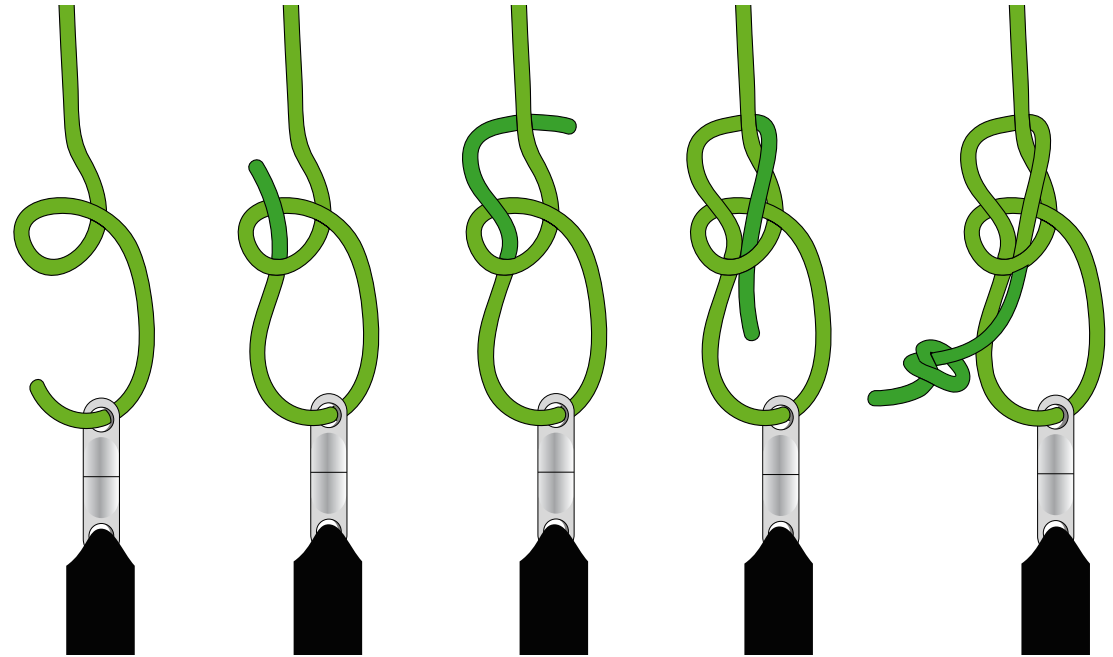
# Connecting the glider

## Brake line length

Brake line lengths are set at the factory to allow optimal glider control. However, if they do not suit you they can be adjusted to your liking.

We will advise using a fisherman's knot and to keep your length changes to a minimum (approx 5cm maximum).

### fisherman's knot



If you modify the original default setting, have it inspected and approved by a professional before flying..



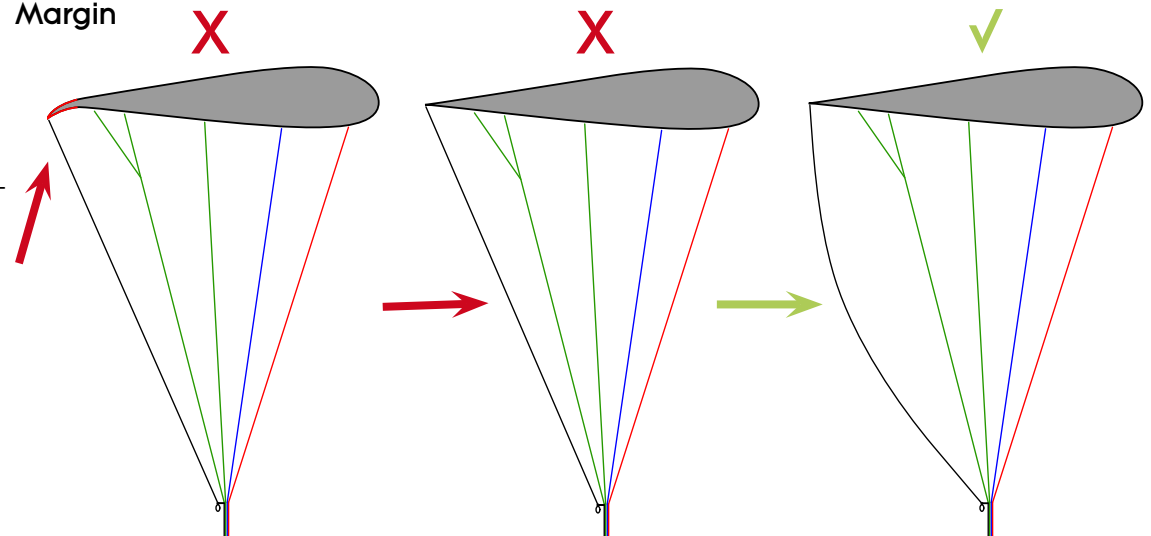
The default factory maximum brake line length is : 72 cm



Be certain to adjust and leave a small amount of line slack to keep steering toggle play, prevent wing profile deformation and hinder the accelerator functionality.

During acceleration, the glider's trailing edge must not be deformed.

Margin





# PRE-FLIGHT PREPARATION

The EONA glider was designed to help new pilots with their progression. To discover your new wing, we will advise you to conduct your first small flights in calm conditions on a school training hill or a familiar site you are used to flying with your own harness.

Unfold the glider and place it on its upper surface in an arc.

Separate the A,B,C risers and the brakes, be certain for the risers and lines not to have any twists or knots or be hooked to a branch, stone etc...

## Caution !



It vital to conduct a thorough pre-flight check and have the harness properly connected to the glider prior each takeoff.

Run through the following procedure prior each takeoff:

- harness or carabiners do not show signs of wear and tear.
- the reserve parachute container is correctly closed and that the handle is in the correct position
- your personal settings have not been changed
- The wing is properly connected to the risers with all links securely tightened and locked in place.
- The wing is properly connected to the harness without any riser twist.
- You are securely connected to the harness with the leg and chest strap buckles closed, self-locking carabiners locked.
- You are wearing your helmet and it is properly fastened.

The design team has strived to produce a wing with optimum inflating abilities in all flyable conditions. Whether it be in light or high winds you will enjoy its docile behavior while launching. However before the first flight, practice ground-handling to become familiar with your new glider. It is possible to inflate in a front- or reversed-launch method.

## Forward launch

To inflate the glider grab the upper ends of the "A" risers with your hands and progressively move forward guiding the glider upward. Once the wing is flying overhead, apply brakes as necessary, look up and perform a visual check before accelerating to take off.

## Reverse launch

If the wind speed is sustained and permits it, we will advise you to use a reversed inflation method more adapted to conduct a better visual check. Face the wing and grab the "A" risers. With a light pull and adapted rearward walking motion, inflate your wing. Once the glider is stable overhead, turn around, look up once more to check that all is ok. before running down the slope and takeoff. Note: it is not necessary to use the "A" risers to inflate the wing.



Caution !

Before take-off, ensure for the airspace to be clear in front, around and above you with weather conditions matching your flying skill level..

Here are a few tips to take advantage of your EONA wing's performance in flight:

## « Hands up » speed or trim speed

Flying « hands up » will provide the best glide ratio in nil wind.

## Using the accelerator/speedbar.

According to the EN A norm, the EONA glider was designed to be stable throughout its speed range.

Accelerated, the wing becomes more sensitive to turbulence. If you sense a glider internal pressure decrease while pushing on the accelerator; lessen the speedbar tension to bring it back to its neutral default setting while slightly applying a small amount of brake by pulling the hand toggles and prevent a possible leading edge frontal collapse.

The accelerator/speedbar length travel is: 13 cm.

## Piloting without the toggles/brakes.

If for whatever reason, the toggles/brakes are no longer available, you will need to pilot your wing using the harness and "C" risers instead. Beware not to overcontrol the glider to limit the risk of experiencing a possible stall.

To land, let your wing glide for as long as possible before applying a full braking motion. Braking using the "C" risers is not as efficient as using the toggles and could bring a more energetic landing than normal.

## Turns

To make your glider turn efficiently, and only after checking that the space below you is clear and safe to land on, weight shift toward the inside of the turn and progressively pull your brake/toggle on the same side until the desired turning angle is reached. The turning speed and radius can also be adjusted by using the other brake/toggle controlling the upper half side of the wing. If flying at low speed, begin your turn by raising your hand on the upper and external side of the turn to prevent a possible flat-turn or twisted turn on the vertical axis.

## Landing

Be certain to always have enough altitude for a safe landing before approaching the chosen Landing Zone ( PTU, PTS, etc...). Never make aggressive maneuvers close to the ground. Always land into the wind ( upwind ), standing up and ready to run to a stop if necessary. Make your landing approach with maximum air speed if possible depending on the weather conditions of the moment, then progressively brake to slow the glider to a final touchdown. Beware not to brake too much, too soon and too rapidly to prevent a possible stall and hard landing.

In case of a landing in sustained higher wind speeds, you will need to quickly turnaround, face the wing, move forward while braking down symmetrically. You can equally pull the "C" risers down to deflate the glider and bring it to the ground.

## Folding

Fold each side of your wing in an accordion-like shape. Stack-up the leading edge reinforcements on top of one another. Bring one side of the glider over the other while keeping the leading edge reinforcements flat. Roll the wing on itself, starting from the leading edge toward the trailing edge. During the entire packing procedure, do not bend the leading edge's reinforcements.

## Towing

The EONA wing can be towed up. Fly only with certified gear operated by qualified personal and only after taking a towing clinic. The towing force must correspond to the weight of the equipment, and the pulling sequence can only start when the wing is fully inflated and stable over the pilot's head.

## Aerobatics

The EONA wing was not designed to enter aerobatic maneuvers. We highly discourage its use for this type of flying.

## Tandem



The EONA wing was not designed for tandem flying.

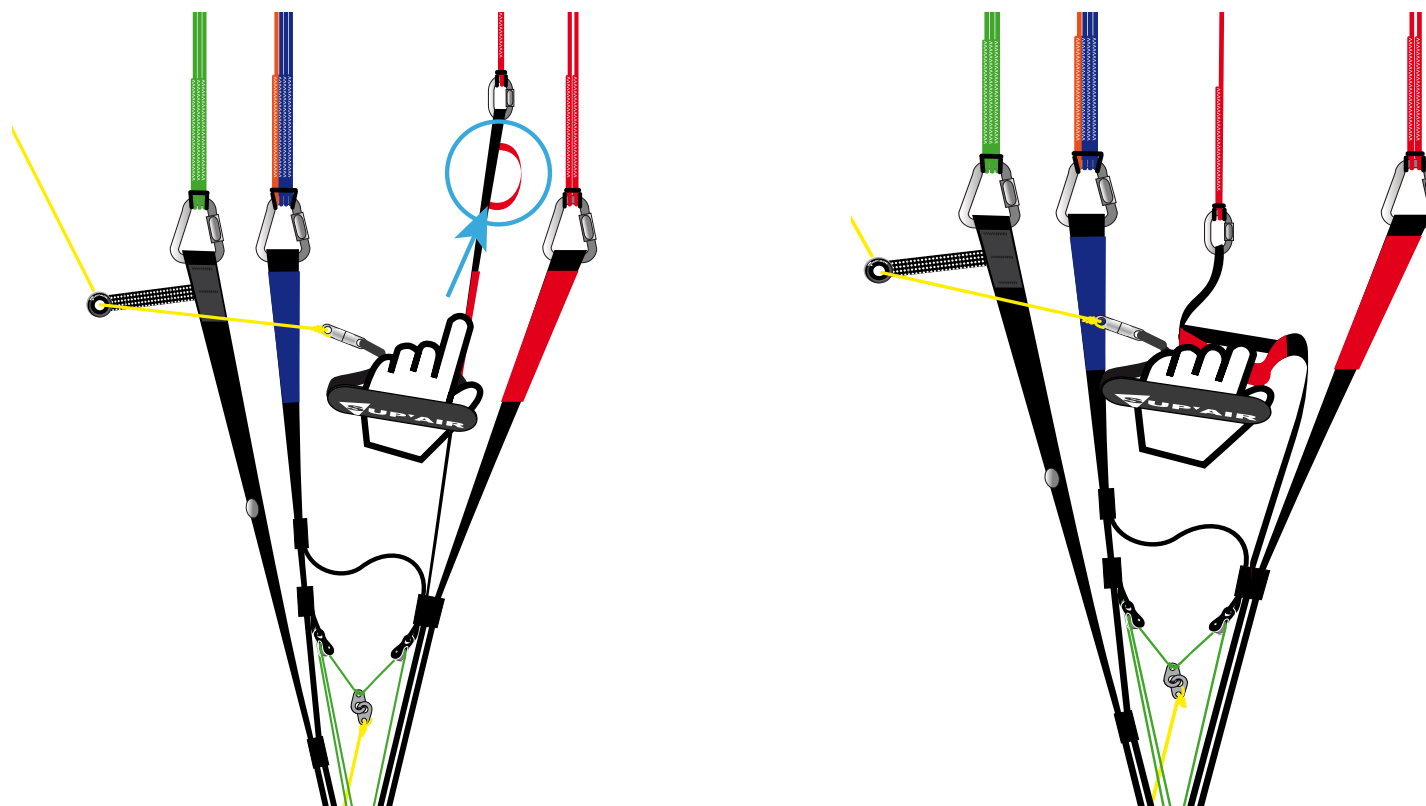
## Specific usage

The following techniques should only be used in emergencies and require prior training to be safely conducted. Appropriate analysis and anticipation of the conditions will often prevent the need to use fast descent techniques. We will advise you to practice in still air and preferably above water.

## Big Ears

Pulling "ears" increases the glider sink rate. We do not recommend the use of big ears close to the ground

In order to pull "ears", grab the specific riser (outer "A" riser) while keeping the toggles in hands and lowering them until the win tips collapse. It is preferable to collapse one side after the other and not simultaneously in order to prevent an eventual frontal collapse. Once the "Ears" are folded and stabilized, we will recommend using the accelerator/speedbar to regain your initial air speed.



To reopen the "Ears", bring the accelerator/speedbar back to its neutral default setting, then let go the risers symmetrically. You can pump the brake/toggles on either side of the wing to facilitate its reopening sequence.

## B-line stall

This technique is usually physically demanding and will provoke a parachutal wing configuration and hence wing control will be diminished.

Loosing altitude using the "B" risers is done by grabbing the risers at the metal links level and applying a symmetrical downward vertical pull until the wing's profile is deformed. This maneuver can be maintained to increase the wing's sink rate.

To regain a normal flying configuration, bring your hands up progressively to the "A" risers red markers, then let go the "B" risers altogether. The wing will experience a moderate surge forward which will need to be instantly neutralized and controlled.

## 360° spiral dives

To begin a spiral dive make sure the air space is clear around and below you, then lean toward the chosen side while gradually applying brake/toggle pressure on that side. The wing will gradually accelerate before entering a full spiral dive. You may use the outer/upper toggle to manage your sink rate.

In order to exit the rotation, get back to a neutral (centered) position in the harness and gradually release the inside brake. You need to keep the glider in a turn as it decelerates in order to limit the surge while exiting the spiral. If your exit is too radical the glider will surge aggressively and experience a substantial dive to be immediately controlled.. Gradually slowing down the rotation with the outside and upper brake will allow you to exit the spiral in a controlled manner.



To prevent stressing we do not recommend combining spiral dives with "Ears".



Conforming to the EN A, the EONA glider does not show any tendency to stay in a locked spiral configuration and will return by itself to a normal flying angle in less than two full rotations when the toggles/brakes are brought back up.



**DANGER** This manoeuvre places a lot of stress on the glider. The high speed and "G" force might be disorientating and, in extreme cases, cause you a temporary loss of consciousness. Practice this maneuver gradually with ample space around and below you.

## Asymmetric collapses

Any paraglider may occasionally collapse due to turbulence or a piloting error. In the event of an asymmetric collapse your priority must be to stay clear of the terrain and regain level flight. It is done by via of weight shifting toward the open side and if necessary, support the action by applying an appropriate amount of brake on the same side.

If the collapsed side does not automatically reopen then pump the collapse side deeply and repetitively to repressurize the deflated wing tip. Repeat if necessary until full reinflation is successful. In the event of a "cravat" (where the wing tip is snagged between the lines) you may use the "ears" technique described above by pulling on the tangled line in order to release the wingtip.

## Front collapses

During a front collapse according to the certification standard the glider is designed to reopen on its own. make sure you do not brake to facilitate the return to a normal flight.

## Parachutal stall

Even though this configuration only rarely occurs, you may find yourself in a situation called "parachutal stall " where the glider descends vertically with no forward motion. If it happens, release the brakes/toggles fully and trims symmetrically. You might also need to push forward on the "A" risers. Make sure you regained a normal flight configuration before proceeding with brake/toggle usage again.

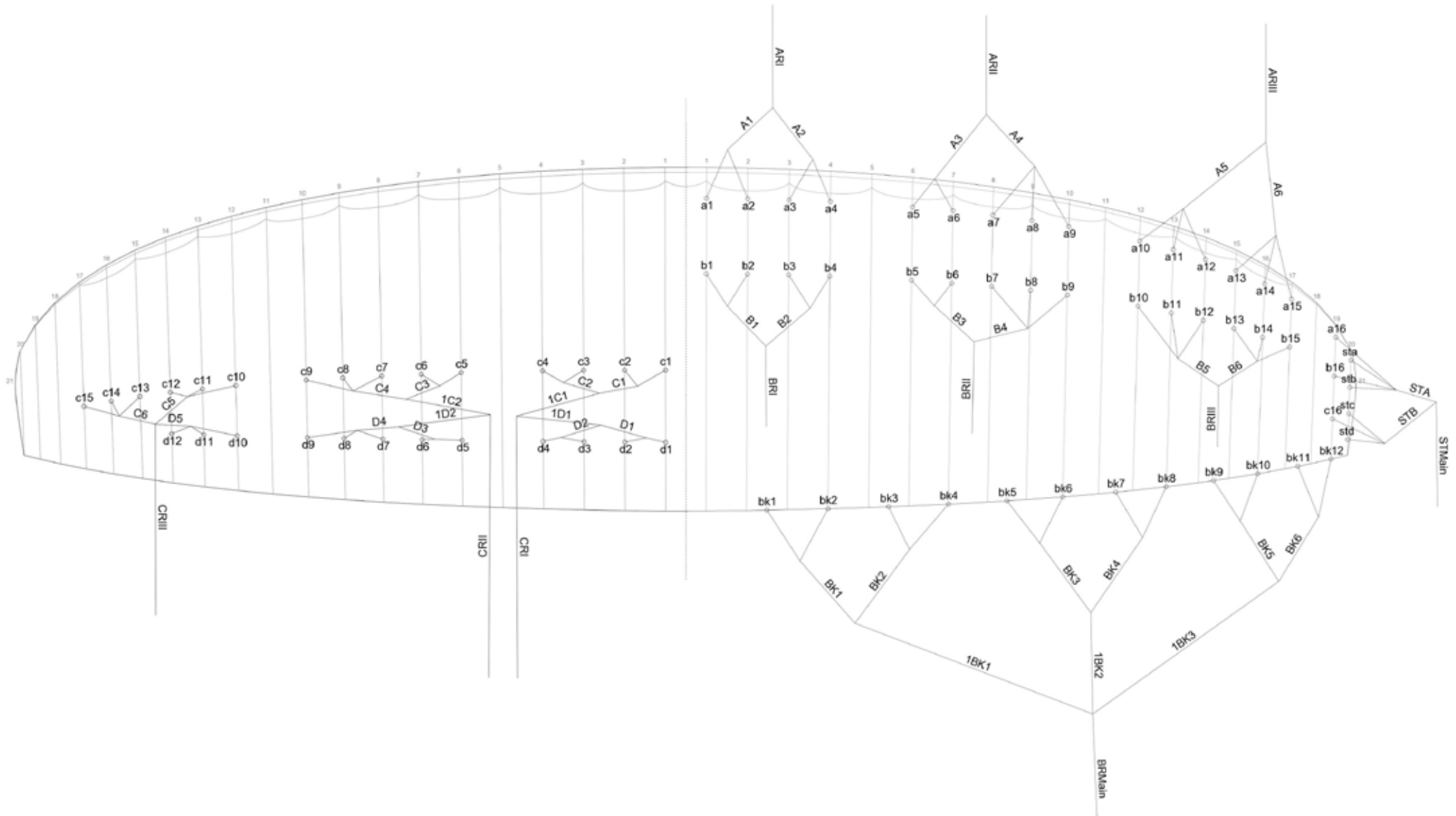
## Stall

This technique is not recommended as it requires intense physical impute. It is not a safe descent technique.

## Spin / asymmetric stall

A spin will only occur because of a piloting error. If so, release the brake fully on the stalled side and be certain to keep the glider in check during the ensuing dive and reopening sequence.

# LINE LAYOUT DIAGRAM





Fabrics	Producer	Reference
Outer surface	Porcher Sport	Skytex 38 Universal – 9017E25
Inner Surface	Porcher Sport	Skytex 38 Universal – 9017E25
Supported ribs	Dominico tex	Dominico 30D hard finish
Compression straps and D ribs	Dominico tex	Dominico 30D hard finish
Unsupported ribs	Dominico tex	Dominico 30D hard finish
Rib reinforcements	Porcher Sport	SR 170

Main lines	Producer	Reference
Top cascade	Liros	DSL 70
Upper middle cascade	Liros	PPSL 160 / PPSL 120
Lower cascade	Edelrid	A7343-280

Stabilo lines	Producer	Reference
Top cascade	Liros	DSL 70
Middle cascade	Liros	DSL 70
Lower cascade	Edelrid	A6843-160

Brake lines	Producer	Reference
Top cascade	Liros	DSL 70
Upper middle cascade	Liros	PPSL 120
Lower middle cascade	Liros	PPSL 160
Lower cascade	Edelrid	785ox - 240
Mailons	Peguet	MAILLON RAPIDE DELTA INOX 3.5MM

## EONA glider

### Size XS

#### Line Check Maintenance Sheet

		A	B	C	D	Frein
Centre	1					
	2					
	3					
	4					
	5					
	6					
	7					
	8					
	9					
	10					
	11					
	12					
	13					
	14					
	15					
Stabilizers	16					
Wingtip	17					

Tolerance: 10 mm.

Riser length : 460mm

## EONA glider

### Size S

#### Line Check Maintenance Sheet

		A	B	C	D	Frein
<b>Centre</b>	1					
	2					
	3					
	4					
	5					
	6					
	7					
	8					
	9					
	10					
	11					
	12					
	13					
	14					
	15					
<b>Stabilizers</b>	16					
<b>Wingtip</b>	17					

Tolerance: 10 mm.

Riser length : 460mm

## EONA glider

### Size M

#### Line Check Maintenance Sheet

		A	B	C	D	Frein
<b>Centre</b>	<b>1</b>	6535	6445	6530	6672	7347
	<b>2</b>	6481	6391	6475	6613	7157
	<b>3</b>	6472	6381	6466	6603	7035
	<b>4</b>	6508	6417	6504	6644	7032
	<b>5</b>	6529	6434	6506	6646	6889
	<b>6</b>	6483	6393	6463	6595	6812
	<b>7</b>	6479	6394	6467	6586	6792
	<b>8</b>	6469	6389	6465	6582	6836
	<b>9</b>	6528	6452	6535	6657	6752
	<b>10</b>	6364	6399	6462	6550	6697
	<b>11</b>	6279	6326	6396	6478	6759
	<b>12</b>	6241	6298	6379	6459	6739
	<b>13</b>	6180	6246	6338		
	<b>14</b>	6127	6203	6305		
	<b>15</b>	6120	6197	6308		
<b>Stabilizers</b>	<b>16</b>	6049	5976	6059		
<b>Wingtip</b>	<b>17</b>	5902	5913	5944	6037	

Tolerance: 10 mm.

Riser length : 490mm

EONA glider  
**Size L**  
 Line Check Maintenance Sheet

		A	B	C	D	Frein
Centre	1					
	2					
	3					
	4					
	5					
	6					
	7					
	8					
	9					
	10					
	11					
	12					
	13					
	14					
	15					
Stabilizers	16					
Wingtip	17					

Tolerance: 10 mm.

Riser length : 520mm

**para-test.com**  **EN certification**  
paragliders  
harnesses  
rescue

**para-test.com**

**Certificate of conformity**

*Air Turquoise SA, nach gründliche Flug und Struktur Teste, zertifiziert dass der hierunter erwähnter Gleitschirm die LTF 91/09 Norm sachlich entspricht, in Kategorie A.*

**Air Turquoise SA**, having thoroughly tested in flight and structure the Paraglider mentioned hereunder, certifies its material compliance with all criteria defined by the LTF 91/09 norm, category A

*Air Turquoise SA, ayant rigoureusement testé en vol et en structure le parapente nommé ci-dessous, certifie par la présente sa conformité matérielle avec la norme LTF 91/09 en catégorie A*

**Manufacturer:** SUPAIR - VLD

**Model/Type:** Eona M

**S/N:** ENA-05-M-071514

**Delivery date:** 14.11.2014

Villeneuve, le 14/11/2014

**Alain Zoller**  
Administrateur, directeur  
Air Turquoise SA

  
www.para-test.com

**para-test.com**  **Air Turquoise SA**  
Rte du Pré-au-Comte 8 | CH-1844 Villeneuve  
tel. +41 21 965 65 65 | mobile +41 79 202 52 30  
info@para-test.com

paragliding by air turquoise

## Certification

EN 926 -1 : 2006 & 926 - 2 : 2013 Classe A.

N° PG-0889.2014

LTF 91/09

## Washing and glider maintenance.

It is a good idea to wash your glider from time to time. We recommend using sponge or soft hair brush and a non aggressive water-soluble cleaning agent (such as baby soap).

We will recommend wing inspections to be conducted at regular intervals:

Repair eventual small fabric damages ( holes smaller than a 1Euro coin or 1 US. 25 cents coin ) with the small rounded sticky ripstop pieces included in your repair kit.

Empty out the cells/caissons from sand, pebbles, grass, leaves, etc...

## Storage and transport.

When not using your glider store it inside your paragliding rucksack in a dry cool and clean place protected from UV exposure. If your harness is wet please dry thoroughly before storing. If your glider is wet or humid, dry it thoroughly first.

Keep all metal parts away from corrosive elements.

## Product longevity.

Irrespective of pre-flight checks, your glider must be serviced regularly and in accordance with its maintenance schedule. We will recommend for the wing to be inspected once a year or every one hundred (100) hours, and more specifically check the followings :

- Lines (no excessive wear no breakages or folds) maillons and carabiners
- Materials selected for the EONA ensure the best compromise for lightness and longevity. However in certain conditions such as exposure to UV or abrasion or exposure to chemical products the glider must be submitted to a thorough inspection by a qualified facility. Your safety depends on it!
- Carabiners must be replaced every five (5) years by identically rated and certified models recommended by the manufacturer (SUPAIR).



## Repair



In spite of using the best quality materials, your glider may be subjected to wear and tear ( Gigi, subjected et non subject ) and hence will need to be regularly inspected at a qualified repair center.

SUP'AIR also offers the possibility for its products to be repaired beyond the end of the warranty period. Please contact us either by telephone or by E-mail [sav@supair.com](mailto:sav@supair.com) in order to receive a quote.

## Recycling

All our materials are selected for their technical and environmentally friendly characteristics. None of the components found in our products will harm the environment. Most of them are recyclable.

If your EONA's life span is over, you can separate all metallic and plastic parts from the cloth and dispose of the rest according to your country's recycling guide lines and requirements. Please contact your local recycling center for more information..

## Mandatory controls



Your glider must be checked every year or every 100 flight hours by a qualified operator.

We advise you to take this opportunity to have your reserve repacked.

## Warranty

SUP'AIR takes the greatest care in the design and production of its product line hence offers a 3 years limited warranty from the purchase date against any manufacturing defect or design issues 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.

## Disclaimer



Paragliding is an activity requiring, skills, specific knowledge and sound judgement. Be safe by learning in certified schools, subscribe and obtain an adequate insurance policy as well as a flying license while always making sure your flying skills are up to the task in various weather flying conditions. SUP'AIR cannot be held responsible for your paragliding decisions or activities.



**This SUP'AIR product was designed for solo use only. Any other activity such as tandem paragliding, skydiving or BASE jumping is absolutely forbidden.**

## Pilot's gear

It is essential to wear a helmet, suitable shoes with good ankle support and adapted clothing. Carrying a reserve emergency parachute corresponding to your weight and properly connected to the harness is also highly recommended.





**EONNA** A graphic of three feathers, one yellow and two green, fanning out to the right of the word 'EONNA'.



SUPAIR-VLD  
Parc Altaïs  
34 rue Adrastée  
74650 Chavanod, Annecy  
FRANCE

[info@supair.com](mailto:info@supair.com)  
+33(0)4 50 45 75 29

45°54.024'N / 06°04.725'E